

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
BIA	1	General	Major Changes to MRP 1.0	BIA supports the proposed major changes to Board Order No. R2-2009-0074.	Comment noted.	None
ACCWP ACCWP Legal	37 3	C.3.b.i.	Regulated Projects Removal of Grandfathering	<ul style="list-style-type: none"> <li>We do not support the proposal that would require projects not under construction to be subject to the new permit requirements.</li> <li>“Grandfathered” projects represent a small amount of impervious surface in the region.</li> <li>Private and public projects are conceived of, financed, and designed with the existing regulations in mind. Changing regulations at the point that a project is about to be constructed can prevent an otherwise environmentally beneficial project from happening.</li> <li>Revise this provision to provide greater flexibility.</li> <li>Add the following language to the end of C.3.d.iv. (Due Date for Implementation): “unless the development project has their own regional order from the Water Board. If there is an existing order that is still valid, the project shall follow the guidelines of that order.”</li> </ul>	<ul style="list-style-type: none"> <li>Board staff acknowledges that in certain situations, a Permittee may not have legal authority to retroactively change the conditions of approval for development projects previously approved without requiring stormwater treatment.</li> <li>Board staff also acknowledges that some of these previously approved projects may not be able to install LID treatment because of site constraints.</li> <li>However, Permittees have not provided any specific information on the number of development projects impacted. Therefore, a reporting requirement for the 2017 Annual Report has been added to gauge how many projects each Permittee has and what action, if any, has been taken to require LID stormwater treatment.</li> <li>It is unclear what subset of development projects the suggested language would capture.</li> <li>The nature of urban runoff pollution is that it is comprised of many small contributions that, together, are significant. Grandfathered projects will ultimately be constructed of the same kinds of materials and will tend to generate the same kinds of urban runoff pollutants as similar, non-grandfathered projects. Incorporating clean water controls into those projects will contribute to reductions in urban runoff impacts to receiving waters. That is true even if</li> </ul>	<ul style="list-style-type: none"> <li>The TO has been revised to include appropriate exemptions to this Provision. For previously-approved development projects meeting the criteria for these exemptions, some Permittees will not be required to revise and update their development permits to include stormwater treatment and in other cases will be required to include non-LID treatment.</li> <li>A reporting requirement has been added for Permittees to report on any development projects captured by this Provision.</li> </ul>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>those development projects represent a small amount of the region's impervious surface. The concept that they may constitute a vanishingly small or insignificant contribution of pollutants, however, has not been supported by appropriately-detailed information submitted by the Permittees.</p> <ul style="list-style-type: none"> <li>• The Permit language has been revised to better identify situations in which it may be feasible for Permittees to incorporate such controls into development projects.</li> </ul>	
ACCWP ACCWP Legal Belmont Brisbane Burlingame East Palo Alto San Bruno San Mateo SCVURPPP SMCWPPP	37 3 3 3 4 6 4 4 14, 95 7	C.3.b.i.	Regulated Projects Removal of Grandfathering	<ul style="list-style-type: none"> <li>• Permittees do not have the legal authority to impose new requirements on projects with approved entitlements or development agreements will face non-compliance with this requirement.</li> <li>• Only a small number of projects and a small percentage of impervious surfaces created/replaced in the region would be subject to this requirement.</li> <li>• It may be difficult for a project to change its site design and layout to accommodate LID treatment measures required by C.3.c and C.3.d.</li> <li>• Delete this requirement as it would have minimal water quality benefit and would likely lead to legal battles with developers.</li> <li>• If the requirement remains, then</li> </ul>	See response to ACCWP 37, above.	See response to ACCWP 37 above.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>at a minimum include language to allow flexibility in implementation (for example, "provide treatment to the extent feasible" and allow use of media filters) for projects that have prior tentative map approvals or development agreements.</p> <ul style="list-style-type: none"> <li>One compromise is to allow the use of non-LID treatment at these projects, which would be easier to incorporate into an approved site design, but this does not address the legal issue.</li> </ul>		
BIA	2	C.3.b.i.	Regulated Projects Removal of Grandfathering	BIA opposes grandfathering of development projects approved prior to C.3. stormwater treatment requirements.	Comment noted.	None
CCCWP Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pleasant Hill Pinole San Pablo San Ramon	18 33 16 16 22 13 19 10 3, 10a 13 3, 12 9 12 19	C.3.b.i.	Regulated Projects Removal of Grandfathering	Allow municipalities the flexibility to require such applicants to implement stormwater treatment requirements only to the extent not in conflict with state law and existing development agreements.	See response to ACCWP 37, above.	See response to ACCWP 37, above.
Concord Contra Costa Co	9 2	C.3.b.i.	Regulated Projects	<ul style="list-style-type: none"> <li>Permittees have no legal authority or mechanism to</li> </ul>	See response to ACCWP 37, above.	See response to ACCWP 37, above.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Daly City Livermore	4 2		Removal of Grandfathering	<p>impose additional requirements on projects with approved vested tentative maps and would not be able to legally comply with this provision.</p> <ul style="list-style-type: none"> <li>• It is more appropriate to focus resource compliance on projects that come before our planning process after MRP 2.0 adoption.</li> <li>• It would take State legislation to create this authority; it is unlikely that such legislation would be approved by the Legislature and signed by the Governor.</li> <li>• This “sunset” of grandfathered projects poses potential serious legal ramifications for entitled projects with conditions of approval which are preserved under various tentative maps.</li> <li>• This requirement would only apply to a significantly small number of projects that will have minimal impact upon water quality and stream channel stability, while creating many legal issues and potential litigation.</li> <li>• Daly City acknowledges that the approval of a final map or parcel map does not confer a vested right to develop, but references Gov’t Code § 66474.2 for the proposition that approval or conditional approval of a vesting</li> </ul>		

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>tentative map shall confer a vested right to proceed with develop in substantial compliance with the ordinances, policies, and standards in effect at the time the vesting tentative map is approved or conditionally approved.</p> <ul style="list-style-type: none"> <li>Daly City also refers to Government Code section 66498.1 for the proposition that a vesting tentative map expressly confers a vested right to proceed with a development in substantial compliance with the ordinances, policies, and standards in effect the time the application is deemed complete.</li> </ul>		
El Cerrito	13	C.3.b.i.	Regulated Projects Removal of Grandfathering	<ul style="list-style-type: none"> <li>Removal of grandfathering may adversely affect much-needed development projects that were in stasis during the economic downturn, such as Eden Senior Affordable Housing, 1715 Elm Residential Development, and Creekside Walk.</li> </ul>	<ul style="list-style-type: none"> <li>Projects that were in stasis during the economic downturn of 2008-09 should have been approved with stormwater treatment in compliance with Provision C.3.d. under the MS4 permit issued before the current MRP (specifically for Contra Costa County Permittees, Board Order No. 99-058, as amended by Board Order Nos. R2-2003-0022, R2-2004-059, R2-2004-0061, and R2-2006-0050).</li> <li>Provision C.3.b.i.(1) specifically exempts such projects from the LID requirements of Provision C.3.c. Therefore, projects that were approved with stormwater treatment measures in compliance with Provision C.3.d. may proceed as approved.</li> </ul>	None
San Jose	2, 18	C.3.b.i.	Regulated	<ul style="list-style-type: none"> <li>Applying new LID requirements</li> </ul>	See response to ACCWP 37, above.	See response to

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
			Projects Removal of Grandfathering	<p>to un-built or longer-term phased projects already approved under previous permit conditions is not possible. Approved building permits are ministerial acts which grant entitlements to the developer and restrict the City's ability to impose any new requirements from that point forward.</p> <ul style="list-style-type: none"> <li>• The phrase "has not begun construction" is ambiguous. The requirement must align with the City's legal ability to impose changes in the project design.</li> <li>• Additional unfavorable impacts on the City include: <ul style="list-style-type: none"> <li>○ Cost of potential litigation brought by a developer that has received a building permit for a phase of development, that has effectively effectuated the project.'</li> <li>○ Significant cost to developers to retrofit projects; and</li> <li>○ Time, cost, and training to implement a new process to ensure appropriate measures are in place per the grandfathering cause.</li> </ul> </li> <li>• Delete this requirement.</li> </ul>	<p>In addition, Board staff concurs that some amount of staff time would be required to ensure appropriate incorporation of controls into project designs that lack them. We note that all Permittees are now implementing Provision C.3 requirements to incorporate such controls, and often are funding this work via permit/review fees. Given the revised Permit language, we believe the additional time and effort needed are reasonable.</p>	ACCWP 37, above.
San Jose	19	C.3.b.i.	Regulated Projects Joint Stormwater Treatment	<ul style="list-style-type: none"> <li>• This Provision requires that a joint stormwater treatment facility be built by completion of construction of the first Regulated Project.</li> </ul>	<ul style="list-style-type: none"> <li>• Each Regulated Project may build its own treatment system. There is no requirement for a Regulated Project to build a joint stormwater treatment facility. Stormwater cannot be allowed to</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
			Facility	<ul style="list-style-type: none"> <li>This is tremendously difficult because a stormwater treatment facility that covers more than one Regulated Project requires funding from all Projects and it is difficult to ask the first Regulated Project to cover the capital costs for a treatment system that will serve several Projects.</li> <li>Allow final construction of any facility that serves two or more Projects to be three years after the first Regulated Project is completed and allow the Regulated Projects that are completed prior to completion of the stormwater treatment to use temporary treatment facilities or a temporary connection to the stormwater system.</li> </ul>	<p>discharge from any Regulated Project untreated; therefore, if it is treated jointly, the joint treatment system must be operational when the first Regulated Project is finished.</p> <ul style="list-style-type: none"> <li>The intent of building joint stormwater treatment facilities is for two or more Regulated Projects to share the cost and the treatment capabilities of the joint stormwater treatment system.</li> <li>Building and discharging to a joint treatment system is optional. It is reasonable to expect that all Regulated Projects discharging stormwater runoff to a joint treatment system will share the capital costs for the treatment system. How much each Regulated Project pays (i.e., whether the first completed Regulated Project pays more) should be worked out amongst all the Regulated Projects. There are situations where a development project incurs costs in advance of project completion, and those costs can be significant (e.g., impact fees to construct schools, fire stations, roads, etc., in advance of project construction or prior to completion of construction). Thus, project proponents should have existing models for incurring these kinds of expenses.</li> </ul>	
Baykeeper	4	C.3.b.ii.	Regulated Project Threshold for Regulation	<ul style="list-style-type: none"> <li>The current threshold of 10,000 ft<sup>2</sup> effectively ensures only the largest of new and redevelopment projects, or those projects outside the central urban core of the Bay Area, to be subject to</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.b.ii.(1) identifies Special Land Use Categories that represent land use types that may contribute more-polluted stormwater runoff and requires stormwater treatment for all such Regulated Projects that create and/or replace 5,000 ft<sup>2</sup> of more of impervious</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>stormwater management controls.</p> <ul style="list-style-type: none"> <li>Moreover, the 10,000 ft<sup>2</sup> threshold does not meet the requirement that MS4 NPDES permits include controls to reduce the discharge of pollutants to the “maximum extent practicable” (“MEP”) (33 U.S.C. § 1342(p)(3)(B)(iii)). The proposed threshold is twice that of San Francisco’s standard under their Stormwater Management Ordinance, which has proven, since passage of the Ordinance in 2010, that a lower threshold standard is feasible in even the most urban areas of Region 2.</li> <li>In addition, the TO incorporates a 5,000 ft<sup>2</sup> threshold for “Special Land use Categories,” indicating that the Water Board has determined that a lower threshold is feasible.</li> </ul>	<p>area.</p> <ul style="list-style-type: none"> <li>The regulatory threshold for all other development projects is 10,000 ft<sup>2</sup> or more of impervious surface.</li> <li>The inclusion of two regulatory thresholds in the TO is consistent with all other Phase I MS4 Permits in the State. The delineation of which size threshold (5,000 ft<sup>2</sup> or 10,000 ft<sup>2</sup>) applies to which categories of Regulated Projects is unique to each MS4 Permit statewide.</li> <li>Board staff considered expanding the 5,000 ft<sup>2</sup> threshold to apply to all Regulated Projects as well as regulating road rehabilitation projects in existing footprints. However, in lieu of that, the TO requires each Permittee to develop a Green Infrastructure Plan (see Provision C.3.j.), which, through its evaluation of opportunities and constraints, will direct future green infrastructure implementation consistent with the MEP standard.</li> <li>The Green Infrastructure Plan will serve as an implementation guide and reporting tool to provide reasonable assurance that urban runoff TMDL wasteload allocations will be met and that Permittees will transition, over time, from “gray” to “green” infrastructure.</li> <li>The TO provides regulatory consistency with other Phase I MS4 Permits in the State and directs Permittees to proceed with green infrastructure planning and implementation; therefore, the TO satisfies the MEP standard.</li> <li>Board staff is aware of the City of San</li> </ul>	



**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					Francisco's work, and recognizes that its ordinance was prepared with multiple goals in mind, including urban greening and reduced discharge of storm water runoff into a combined sewer system, and is funded significantly by fees from the City's combined sewer system, a type of funding source generally unavailable to the Permittees. As such, it was prepared to be responsive to requirements other than a municipal MS4 NPDES permit, and is not necessarily representative of a specific MEP threshold for an MS4 permit.	
ACCWP	35	C.3.b.ii.	Regulated Project Categories	We support the Tentative Order's (TO's) retention of the existing thresholds of impervious surface for Regulated Projects (i.e., 10,000ft <sup>2</sup> and 5,000ft <sup>2</sup> for certain project categories).	Comment noted.	None
Dublin	2	C.3.b.ii.(1)(a)(iv)	Regulated Projects Uncovered Parking Lots	<ul style="list-style-type: none"> <li>As written, it is unclear if a project which otherwise would not qualify as a Regulated Project includes a parking lot that replaces/creates more than 5,000ft<sup>2</sup> of parking lot, is just the parking lot surface created/replaced subject to C.3.c and C.3.d requirements, or would the entire project site would be considered subject to C.3.c and C.3.d requirements.</li> <li>Revise to specify that only the impervious surface area(s) of uncovered parking lot created and/or replaced are subject to the requirements of Provisions</li> </ul>	<ul style="list-style-type: none"> <li>If a development project creates and/or replaces 5,000 ft<sup>2</sup> or more of impervious surface on an uncovered parking lot, but the entire project (e.g., tiny building with a 5,000 ft<sup>2</sup> parking lot) creates and/or replaces less than 10,000 ft<sup>2</sup> of impervious surface, then only the uncovered parking lot's stormwater runoff must be treated with LID treatment in compliance with Provision C.3.c. and d.</li> <li>The current language in this Provision already adequately captures such a scenario as described. Furthermore, such a scenario would be very rare; therefore, no change to the language is warranted.</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				C.3.c and C.3.d.		
ACCWP	36	C.3.b.ii.(1)(c)	Regulated Projects 50% Rule	<ul style="list-style-type: none"> <li>• This Provision requires projects where 50% or more of existing impervious area is redeveloped to provide treatment for the entire area.</li> <li>• Most of the redevelopment projects result in a reduction in the overall amount of impervious surface and have other environmental benefits as well.</li> <li>• The 50% rule acts as a disincentive to do these environmentally beneficial infill projects because it is often very challenging to install measures to treat runoff from areas not being modified by the Regulated Project.</li> <li>• Delete this provision.</li> </ul>	<ul style="list-style-type: none"> <li>• The purpose of the 50% rule is to require stormwater treatment for projects where a substantial amount of impervious surface is being replaced and the overall redevelopment investment is significant enough to warrant completing treatment for the entire project. It is a means to address the pollutant loading from existing development and impervious surfaces when these sites are being redeveloped. Use of the 50% rule in this Provision is consistent with the Permittees' current stormwater permits and stormwater permits statewide; therefore it is considered MEP.</li> <li>• In situations where the site conditions render the treatment of existing impervious areas challenging or cost-prohibitive, Provision C.3.e. provides an alternative means to comply with Provision C.3.b.</li> <li>• Water Board staff recognizes that redevelopment infill projects are a means for using land in existing urban areas (e.g., redeveloping old commercial or industrial sites as higher-density commercial, residential, or multi-use projects), and thus accommodating additional development within the Bay Area. While they may be less-impacting than lower-density projects on the suburban or exurban fringe, infill projects are still impacting, in that they generate urban runoff pollutants over the life of the project. Additionally, it is unclear that construction of an infill project</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>necessarily precludes or avoids construction of suburban or exurban projects, or results in the removal of existing low-density suburban or exurban development, which would more clearly show an environmental benefit.</p> <ul style="list-style-type: none"> <li>If constructed with appropriate clean water measures, infill and infill redevelopment projects have the opportunity to be environmentally beneficial with respect to their urban runoff water quality, and the proposed Permit requirements address that opportunity.</li> </ul>	
CCCWP Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	20 35 18 18 24 15 21 12 10c 15 11 14 14 21	C.3.b.ii.(1)(c)	Regulated Projects 50% Rule	<ul style="list-style-type: none"> <li>This Provision pre-dates the LID requirements. With new design requirements promoting the use of LID facilities distributed throughout a development site, rather than building one large detention basin to serve the entire site, this requirement can require applicants to retrofit areas, including plazas and buildings with underground drainage pipes, that are otherwise left untouched by additional development on the same site.</li> <li>Water Board staff has stated the purpose of the 50% rule is to promote retrofit of existing development, an objective which is now addressed by the new Provision C.3.j.</li> <li>Delete this requirement as the intent is superseded by the</li> </ul>	<ul style="list-style-type: none"> <li>As stated in the Fact Sheet, green infrastructure requirements are in lieu of expanding the Regulated Projects road projects category to include reconstruction of roads. They are not in lieu of the 50% rule.</li> <li>The purpose of the 50% rule is to require stormwater treatment for projects where a substantial amount of impervious surface is being replaced. It is a means to address the pollutant loading from existing development and impervious surfaces when these sites are being redeveloped. Use of the 50% rule in this Provision is consistent with the Permittees' current stormwater permits and stormwater permits statewide; and is considered MEP.</li> <li>In situations where the site conditions render the treatment of existing impervious areas challenging or cost-prohibitive, Provision C.3.e. provides alternative means of compliance with</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				green infrastructure requirements in Provision C.3.j.	Provision C.3.b.	
Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	34 17 17 23 14 20 11 10b 14 10 4, 13 13 13	C.3.b.ii.(4)	Regulated Projects Road Projects	<ul style="list-style-type: none"> <li>This Provision retains the applicability of Provision C.3. treatment requirements to certain road improvement projects, even though Provision C.3.j sets forth a comprehensive long-term approach to achieving the retrofit of streets and drainage systems with green infrastructure.</li> <li>Delete this requirement that categorizes new road and lane addition projects as Regulated Projects because the intent is superseded by the green infrastructure requirements in Provision C.3.j.</li> </ul>	As stated in the Fact Sheet, green infrastructure requirements are in lieu of expanding the Regulated Projects' road projects category to include reconstruction of roads and not in lieu of new roads or new additional lanes added to existing roads. Additionally, the Green Infrastructure Plan requirements during the coming permit term are significantly planning requirements, as opposed to on-the-ground implementation requirements that will result in the construction of road urban runoff treatment controls during the coming permit term. While it is likely that Green Infrastructure Plan minimum requirements will be informed by the proposed Permit's road language, that will be worked out as part of the process set forth in Provision C.3.j.	None
Oakland	16	C.3.b.iii.	Regulated Projects Reporting Requirements	<ul style="list-style-type: none"> <li>The amount of information required in the annual reports has grown substantially. Preparation of these reports requires City staff to devote approximately 2,000 hours per year to maintain, collect, and assemble the data necessary for reporting.</li> <li>Streamline reporting requirements and require reporting every other year.</li> <li>Reporting on specific design elements for each C.3 project. Reporting requirements should be changed to require City to</li> </ul>	<p>The data collection and reporting requirements for Regulated Projects are identical to what is required under the current Permit. Therefore, the databases developed and established under the current Permit remain valid. The required Provision C.3.b. Reporting Table should be easily generated from these existing databases.</p> <p>Water Board staff review of projects during the Previous Permit identified Permittees that had shortcomings in their project review and BMP implementation processes. A blanket certification that projects are C.3 compliant does not have</p>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				certify that all new development is C.3-compliant.	the level of detail/granularity to serve as an appropriate compliance check.	
Belmont Burlingame Brisbane San Jose San Mateo SCVURPPP SMCWPPP	4 5 5 20 5 15 8	C.3.c.i.(2)(b)	LID Site Design Pervious Pavement Design Specifications	<ul style="list-style-type: none"> <li>• Permittees are required to collectively develop and adopt design specifications for pervious pavement systems, subject to Executive Officer (EO) approval.</li> <li>• The process for compliance with this Provision is unclear (i.e., whether and what type of submittal is required, and by when). The requirement places an undue new level of work on the Permittees, and a potential new level of uncertainty because of the need for EO approval, without any factual basis in the fact sheet to support the increased effort.</li> <li>• Allow Permittees to reference a regional or countywide pervious paving specification in their Annual Reports (including a web link to the document) that meets the intent of this Provision.</li> <li>• In addition, the definition of pervious pavement systems should be expanded to include grid pavements (e.g., turf block or plastic grid systems).</li> <li>• This requirement duplicates work that already exists for SMCWPPP. There is no indication that existing specifications are insufficient or</li> </ul>	<ul style="list-style-type: none"> <li>• Design specifications are necessary because improperly designed and engineered pervious pavement systems may cause flooding and the discharge of insufficiently-treated stormwater runoff.</li> <li>• This Provision requires the Permittees to collectively develop and adopt design specifications for pervious pavement systems, subject to the Executive Officer's approval. However, Board staff acknowledges that design specifications developed by the Permittees may already exist and are currently being used at development sites with no problems.</li> <li>• In addition, this represents an opportunity to incorporate, as appropriate, improvements in knowledge, such as an expected upcoming American Society of Civil Engineers design standard for the construction of pervious pavement using unit pavers.</li> <li>• Appropriate changes have been made in the Provision to acknowledge these existing design specifications.</li> <li>• The pervious pavement definition has been expanded as requested.</li> </ul>	<ul style="list-style-type: none"> <li>• This Provision has been revised to allow Permittees to reference pervious pavement design specifications previously developed by countywide programs and adopted into countywide stormwater handbooks.</li> <li>• The definition of pervious pavement has been expanded to include grid pavers.</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>ineffective.</p> <ul style="list-style-type: none"> <li>San Jose requests deletion of this requirement.</li> </ul>		
Contech	1, 2,	C.3.c.i.(2)(c)	Bioretention versus Biofiltration	<ul style="list-style-type: none"> <li>Distinguish between bioretention designs that retain the design storm and biofiltration, which employs underdrains and releases a portion of the design storm.</li> <li>The failure to distinguish between true bioretention designs with no underdrain, and biofiltration designs that release water downstream makes this tentative order inconsistent with other contemporary Phase I NPDES permits in California</li> <li>Restore a BMP selection hierarchy that prioritizes BMPs that retain the design storm (rainwater harvesting, infiltration and bioretention without underdrains) above those that treat and release a portion of the design storm. This assumption about biofiltration equivalency found in the tentative order is linked back to a “White Paper” on Provision C.3 in MRP 2.0 provided by BASMAA that states: “Bioretention is, on balance, equal in water quality effectiveness to harvesting/use or infiltration.” This is a patently false assumption since C.3 bioretention systems most often</li> </ul>	<ul style="list-style-type: none"> <li>Comments noted.</li> <li>Water Board staff considered retaining in the Permit an infiltration/retention hierarchy similar to the Previous Permit, or incorporating a requirement similar to that in MS4 permits like that in the Los Angeles Regional Water Board’s Order No. R4-2012-0175.</li> <li>Low impact development runoff treatment practices, including bioretention, remove urban runoff pollutants through a variety of mechanisms, including mechanisms that prevent runoff from discharging directly downstream to a surface water, such as: infiltration of flows into the ground; evapotranspiration; and capture and reuse. These mechanisms can play a significant role in reducing pollutant loads in runoff (see, for example, bioretention performance studies at the International Stormwater BMP Database, <a href="http://www.bmpdatabase.org">www.bmpdatabase.org</a>). Studies in the Bay Area and elsewhere have found that bioretention designs, even in clay soils expected to have fairly low infiltration rates, may infiltrate a significant portion of runoff (e.g., Contra Costa County Clean Water Program, September 15, 2013. IMP Monitoring Report). Ongoing improvements to bioretention designs, such as inverted elbows for underdrains, which maximize the time available for runoff to evapotranspire and infiltrate into the ground, are likely to continue to</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>do not retain the water quality event in its entirety.</p> <ul style="list-style-type: none"> <li>• It is surprising that the tentative order would essentially double down on this untested design (bioretention) by elevating it to equal status with retention BMPs.</li> <li>• The stated goal of Provision C.3 “is for permittees to use their planning authority to reduce pollutant discharges and runoff flow into the storm drain system. How can we be sure that C.3 bioretention applied on virtually every priority project is actually reducing the discharge of pollutants of concern to the maximum extent practicable if no performance data is collected?</li> <li>• Taken together, reports demonstrate that bioretention effluent performance is highly variable and that where the water quality volume is not fully retained, biofiltration soil composition is critical, not just to maintain plant vitality and hydraulic capacity, but also to ensure significant pollutant removal performance. It also suggests that widespread implementation of sand- and compost-based systems may actually cause or contribute to nutrient impairments downstream. Rather than</li> </ul>	<p>improve volume reduction performance.</p> <ul style="list-style-type: none"> <li>• At the same time, the Permit appropriately considers potential constraints, such as the significant area of clay-rich soils in the Permittees’ jurisdictions, the potential need to construct lined systems in certain limited situations, such as areas of high groundwater, immediately adjacent to structures, or on brownfield sites, and complicating factors such as the need to control potential mosquito breeding habitat. Recognizing that current bioretention designs can provide significant benefits relating to reductions in runoff flows, and that other processes (e.g., external grant awards, such as of Proposition 1 funds) may lead to further capture and reuse, Water Board staff is not proposing to incorporate an additional infiltration, retention, or reuse requirement.</li> <li>• Current bioretention designs are not “untested,” as suggested by the commenter. Rather, their designs and their pollutant removal mechanisms have been and continue to be the subject of significant testing and evaluation, reflected in part in the performance study summaries referenced above, by ongoing work by researchers such as Allan Davis at the University of Maryland, Rob Traver at Villanova University, Shirley Clark at Penn State University (Harrisburg), Bill Hunt at North Carolina State University, and others, and also in work completed elsewhere in California, and in the Bay Area by the Permittees and by entities</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				ignoring these lessons, the MRP 2.0 should be written to stimulate research that further illuminates the link between system design and performance and results in more effective BMPs.	like the San Francisco Estuary Institute. Local work includes study of performance relating to pollutants including nutrients, PCBs, and mercury. This is expected to result in continued improvement to bioretention designs consistent with the MEP standard, which is an evolving standard.  • Additionally, the C.3 reporting requirements ensure that Permittees will report on implementation of LID measures in regulated projects, and that sufficient information is available for Water Board staff to ensure effective implementation.	
BIA SCVURPPP SMCWPPP	3 16 9	C.3.c.i.(2)(c)(i)	Low Impact Development Treatment	We support allowing properly-engineered and -maintained biotreatment systems to be installed without a feasibility analysis of harvesting and use, infiltration, or evapotranspiration treatment measures first.	Comment noted.	None
Contech	4, 5	C.3.c.i.(2)(ii)	Performance Standard for Flow Thru Systems Bioretention Soil Blends	<ul style="list-style-type: none"> <li>Ideally, MRP 2.0 would set a performance standard for flow-through treatment systems. This would stimulate research and is done in WA State.</li> <li>If this clarity was provided, along with a verification process whereby performance relative to that standard could be assessed, the academic and private sectors would come alive to develop innovative solutions. This is the approach taken in some other states, notably Washington, where</li> </ul>	<ul style="list-style-type: none"> <li>Comments noted.</li> <li>The Permit's bioretention performance criteria and related requirements were developed in coordination with the Permittees, U.S. EPA, and others after significant consideration of existing standards and knowledge. In comments on the proposed amendment of the Previous Permit in 2011 and again during discussions for this Permit, the Permittees indicated their intent to continue to experiment and innovate with regard to bioretention soil specs, which all acknowledge are a key aspect of effective bioretention performance. Water</li> </ul>	None



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>specific performance targets for TSS, oil, dissolved metals, and phosphorus removal have been set and a program for the evaluation of emerging technologies has been established.</p> <ul style="list-style-type: none"> <li>• Closer to home, a similar approach has been taken by the Sacramento Stormwater Quality Partnership, where peer-reviewed field verification of TSS removal performance is required for use of innovative stormwater treatment systems.</li> <li>• A simple change to the MRP would be to require that any flow-through treatment system, including any future media blends developed by the Permittees or others, be demonstrated to meet the Basic (TSS), Phosphorus, and Enhanced (dissolved Cu and Zn) performance standards set by the Washington State Department of Ecology.</li> <li>• Rather than allow Permittees to propose alternate bioretention soil blends, (1) set a performance target for alternative designs, (2) allow alternative system designs and alternative 5 inch/hour soil blends, and (3) allow any party to bring alternative designs for Regional Board review</li> </ul>	<p>Board staff anticipates the Permittees will prepare and submit a revised bioretention soil specification(s) during the coming Permit term. Review of the specification(s) will consider issues including those raised by the commenter.</p> <ul style="list-style-type: none"> <li>• While the Regional Water Board does not currently have resources available to implement a new technology verification program equivalent or substantially similar to Washington State's, designs implemented under the Permit have been, and will continue to be, informed by lessons learned from programs like Washington State's, as well as ongoing research in the Bay Area, California, and elsewhere (see response to Contech 1, 2, above). We recognize that Washington State's TAPE program, as described at <a href="https://fortress.wa.gov/ecy/publications/documents/1110010.pdf">https://fortress.wa.gov/ecy/publications/documents/1110010.pdf</a>, and which includes dissolved copper and dissolved zinc in addition to other pollutants, is relatively more robust than assessment programs limited to a TSS standard. At the same time, by itself, it may not consider issues important to certain Permittees and in the Bay Area, including performance related to mercury and PCBs and performance over time.</li> <li>• A substantial portion of the MRP's success is due to the cooperative relationships that have been built and maintained over time amongst Permittees and between Permittees, the Water Board, and other interested parties. Past Permittee work has been significantly informed by research and</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<ul style="list-style-type: none"> <li>As it stands now, Section C.3.c.i.2.c.ii allows the Permittees to propose alternate bioretention soil blends to Regional Board for approval. Unfortunately, this puts all the media development and testing responsibility on the shoulders of the Permittees, which would divert resources away from other important stormwater program activities. This provision should be improved in three ways. First, a performance target should be set for alternative designs. Currently, plant survivability and hydraulic capacity are the only criteria. Adopting the Ecology standards would be a good approach that is consistent with other programs. Second, alternative system designs should be allowed as well as alternative 5"/hr soil blends. As long as pollutant removal and hydraulic capacity performance standards are met, there is no reason to constrain systems to 5 inches per hour. Third, any party should be allowed to bring alternative designs forward for Regional Board review, not just permittees.</li> </ul>	third party work both in the Bay Area and outside the Permittees' jurisdictions. The Permittees meet regularly in meetings open to the public (e.g., under BASMAA's aegis), and we urge the commenter to coordinate with the Permittees' ongoing efforts to develop revised bioretention soil specifications.	
Baykeeper	5	C.3.d.i.	Hydraulic Sizing Criteria for Treatment	<ul style="list-style-type: none"> <li>Volume- and flow-based hydraulic design standards presented in Section C.3.d.i. are presented as hydrologic and</li> </ul>	<ul style="list-style-type: none"> <li>Each countywide program has adopted stormwater handbooks that serve as guidance documents for Permittees and the regulated community on the</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>hydraulic standards, requiring expertise to conduct site-specific calculations.</p> <ul style="list-style-type: none"> <li>• Baykeeper’s experience is that in the absence of readily-available site-specific precipitation data, the regulated community either must hire consultants to conduct expensive analysis for generation of site-specific values, or make estimates based on information found on the internet.</li> <li>• To ensure adequate oversight and consistent implementation, the Water Board should prepare site-specific calculations of the 85th percentile storm runoff event, the 85th percentile hourly rainfall intensity, and information necessary to calculate the 50-year peak flow rate.</li> </ul>	<p>requirements contained in Provision C.3. These handbooks provide detailed guidance and example calculations for designing stormwater treatment systems that meet the volume- and flow-based hydraulic design standards of Provision C.3.d. As such, the regulated community is not required to come to each site <i>de novo</i>, but rather has straightforward existing guidance and methods that can be used for the site.</p> <ul style="list-style-type: none"> <li>• Additionally, the countywide programs conduct regular training sessions on the Provision C.3. requirements for Permittees and the regulated community.</li> <li>• Countywide program managers and Water Board staff are also available to answer specific questions from Permittees and the regulated community on Provision C.3. and the other requirements in the MRP.</li> </ul>	
Water Board June 10, 2015 Hearing Transcript Vaikko Allen, Regulatory Director Contech	Page 122 (Lines 10-25) Page 123 (Lines 1-2)	C.3.e.i.	Alternative Compliance Offsite Treatment or Payment of In- Lieu Fees	<ul style="list-style-type: none"> <li>• It is possible if you’re pursuing the alternative compliance path to do offsite treatment in the watershed, and you potentially have up to five years for that other project to come online and be treating water from the time that your project is completed. And that other project may also be treating water, probably will be treating water, from a different part of the watershed. What that leaves is the possibility for</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.e.i.(1) Option 1 specifies that offsite LID treatment measures must be in the same watershed and provide hydraulically-sized treatment (in accordance with Provision C.3.d.) of an equivalent quantity of both stormwater runoff and pollutant loading and achieve a net environmental benefit.</li> <li>• Provision C.3.e.i.(2) Option 2 specifies that the Regulated Project must pay in-lieu fees to a Regional Project in the same watershed to provide hydraulically-sized treatment (in accordance with Provision C.3.d.) of an equivalent</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>runoff from your site, from the site in question, to be untreated and be discharged from the site really forever.</p> <ul style="list-style-type: none"> <li>I think that there needs to be a baseline performance standard implemented for site runoff even when alternative compliance is – almost made it. Thank you.</li> </ul>	<p>quantity of both stormwater runoff and pollutant loading and achieve a net environmental benefit.</p> <ul style="list-style-type: none"> <li>Provision C.3.e.i.(3) requires that any offsite or Regional Project be constructed within 3 years of the end of construction of the Regulated Project. The 3 years of additional time are allowed because more time may be required to complete construction of offsite and Regional projects because of administrative, legal, and/or construction delays.</li> <li>Board staff acknowledges in some instances, an even longer time may be required to complete construction of Regional Projects because they may involve a variety of public agencies and stakeholder groups and a longer planning and construction phase. Therefore, the timeline for completion of a Regional Project may be extended up to 5 years after the completion of the Regulated Project, with prior Executive Officer approval. Executive Officer approval will be granted contingent upon a demonstration of good faith efforts to implement the Regional Project, such as having funds encumbered and applying for the appropriate regulatory permits.</li> <li>In developing the Alternative Compliance language, staff considered the issues raised by the commenter. The options discussed above were developed in consideration of what is appropriate to require under the MEP standard (e.g., what can be accomplished given limitations such as the need to comply with local permitting processes), while</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					ensuring it would result in a net environmental benefit. At present, there is a significant area of untreated urban landscape that discharges polluted runoff into the MS4. Thus, while Alternative Compliance can mean not treating new area, the alternative treatment of a separate existing area means that, with the Permit's requirements, there will be a net environmental benefit. At some point in the future, that may need to be changed, but there is a significant urban area available for retrofit, and will be for some time.	
East Bay Leadership Council	1	C.3.e.i.	Allow More Time for Offsite Projects	<ul style="list-style-type: none"> <li>• Being in the midst of one of the most severe droughts on record, it is an opportune time to recognize that stormwater capture and re-use may be one piece of a multi-faceted response to the increasingly complex challenge of providing sufficient water supply for the population and the environment so that the dual goals of economic vitality and quality of life remain viable and compatible.</li> <li>• We are concerned that, while the proposed permit identifies the importance of integrating efforts, it then forecloses the flexibility that will be necessary to actually accomplish that goal. For example, the time frame allowed for completing offsite and Regional Projects, just</li> </ul>	<ul style="list-style-type: none"> <li>• Water Board staff recognizes the challenges posed by the California climate and current drought, including the need to manage water and water quality in a sustainable and resilient way, consistent with applicable regulatory requirements.</li> <li>• This Provision allows any Regulated Project to provide LID treatment for up to 100% of the required Provision C.3.d. stormwater runoff at an offsite location or pay equivalent in-lieu fees to provide LID treatment at a Regional Project, as long as the offsite or Regional Project is in the same watershed as the Regulated Project and constructed within 3 years of the end of construction of the Regulated Project.</li> <li>• The 3 years of additional time are allowed because more time may be required to complete construction of offsite and Regional projects because of administrative, legal, and/or construction</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>three years, is unrealistic. Provision 3.C.3.e.i.(3). Requiring that significant offsite and Regional Projects be completed within three years of completion of the Regulated Project does not recognize the realities of designing and constructing such a project. Even with the opportunity to extend that period to five years at the discretion of the Executive Officer, the option does not give any significant project a chance to get off the ground. Any significant Regional Project intended to incorporate water supply, flood control, and groundwater recharge goals with stormwater treatment will likely take far more than three to five years to compete, given the necessary design and environmental review processes, including the always-present potential for lengthy legal challenges. If funding sources for these projects, i.e., in lieu fees, may only be available for three years, the stability of funding necessary to even initiate a truly significant Regional Project will never materialize.</p> <ul style="list-style-type: none"> <li>• The East Bay Leadership Council urges the Regional Board to extend the time-frame for completing offsite and</li> </ul>	<p>delays.</p> <ul style="list-style-type: none"> <li>• We acknowledge in some instances, an even longer time may be required to complete construction of Regional Projects because they may involve a variety of public agencies and stakeholder groups and a longer planning and construction phase. Therefore, the timeline for completion of a Regional Project may be extended up to 5 years after the completion of the Regulated Project, with prior Executive Officer approval. Executive Officer approval will be granted contingent upon a demonstration of good faith efforts to implement the Regional Project, such as having funds encumbered and applying for the appropriate regulatory permits.</li> <li>• There needs to be a limit on the additional time given for completion of offsite and Regional Projects because the Regulated Projects cannot be allowed to be built and discharging untreated stormwater runoff with no compensatory treatment elsewhere. That may result in significant unmitigated impacts to beneficial uses during that period.</li> <li>• Permit provision C.3.j, Green Infrastructure planning, sets a process that should facilitate future construction of offsite and regional projects by identifying and prioritizing project opportunities for such projects in advance. As such, the Permit includes a process intended, in part, to address the commenter's concerns.</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				Regional Projects receiving in lieu fees to at least ten years with the opportunity to extend that period up to fifteen years at the discretion of the Executive Officer, and longer with Regional Board concurrence.	<ul style="list-style-type: none"> <li>Finally, we note that Permittees may determine to fund in advance (e.g., through their own funds, impact fees, grant awards, etc.) construction of alternative mitigation projects not otherwise connected to a particular development project or projects. As an example in a different water regulatory program, the Zone 7 Flood Control and Water District recently funded riparian enhancement in advance, with the intention of providing that as a mitigation opportunity for third-party projects obtaining creek and wetland fill permits; we understand that program has been proceeding with timelines similar to, or shorter than, what are in the Permit. Similarly, Permittees regularly require payment of impacts fees to complete improvements such as new schools and fire stations, road improvements, etc.—these can be required prior to project completion, as opposed to up to 3-5 years afterwards. As with water quality and minimizing impacts to beneficial uses, that timing recognizes that there are impacts resulting from projects that it is necessary to address sooner. Additionally, it becomes more challenging to estimate project costs the further they are in the future, increasing the uncertainty as to whether mitigation may be effectively implemented with fees collected 10-15 years ahead. One option Board staff considered was to allow significantly more time, as suggested by the commenter, but to address the intervening otherwise unmitigated</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>environmental impacts by requiring regional projects to treat a multiple of the original untreated contributing area. For the reasons discussed above, including balancing uncertainty and funding with estimated costs, the timing, as proposed, is appropriate.</p> <ul style="list-style-type: none"> <li>• Similarly, as a part of approving creek and wetland fill permits for large projects that have off-site mitigation components (e.g., construction or enhancement of wetlands and creeks), the Water Board has often required that the off-site mitigation lands and projects be obtained and completed concurrently with the development projects, or within a year of the development project's first impacts, which is typically while those projects are still under construction. Projects have met those requirements, which appear to involve a process similar to that needed for alternative compliance projects (e.g., obtaining land or appropriate permissions to work on land, environmental review, and appropriate regulatory approvals and constructing the mitigation). Therefore, a 3-year period after the end of construction for alternative compliance work that could be completed in advance, with additional time up to 5 years, is reasonable.</li> </ul>	
Belmont Burlingame Mountain View San Bruno San Jose San Mateo	5 6 2 6 3, 21 6	C.3.e.ii.	Alternative Compliance Special Projects FAR and Gross Density	<ul style="list-style-type: none"> <li>• The current MRP allows Permittees to define FAR and calculate DU/acre consistent with their standard practices and professional land use planning standards.</li> </ul>	<ul style="list-style-type: none"> <li>• Definitions of gross density and floor area ratio have been included in Provision C.3.b.ii. to aid consistent implementation of this Provision by all Permittees. The current Permit does not define these terms.</li> </ul>	None



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
SCVURPPP SMCWPPP	17 10			<ul style="list-style-type: none"> <li>Contrary to what Permittees typically use, and contrary to past Water Board guidance on right-of-way and roadway projects, the TO prescribes specific definitions for each that include public rights-of-way, public plazas, and civic areas, which can be essential public infrastructure components or contribute toward an overarching community vision, livable high-density development, Smart Growth concepts, and placemaking goals for the area.</li> <li>These new definitions of gross density and FAR will result in lower density values that may prevent some valuable high-density projects from qualifying for LID treatment reduction credits.</li> <li>The new definitions create new data requirements for Permittees to track and report separately.</li> <li>Change the definitions of FAR and gross density to exclude public plazas, public rights-of-way, and civic areas.</li> </ul>	<ul style="list-style-type: none"> <li>Gross Density is defined as the total number of residential units divided by the acreage of the entire site area, including land occupied by public rights-of-way, recreational, civic, commercial, and other non-residential uses. Floor Area Ratio (FAR) is defined as the ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area. These appear generally consistent with the definitions offered by the American Planning Association (e.g., at <a href="https://www.planning.org/pas/quicknotes/pdf/QN12.pdf">https://www.planning.org/pas/quicknotes/pdf/QN12.pdf</a>). While some Permittees may choose to offer project proponents variations on density or related requirements (a stereotypical example is offering a height or density bonus in exchange for provision of a public plaza or other public space), the offered definitions provide consistency across all Permittees for the purpose of considering water quality impacts.</li> <li>Gross density and FAR have been purposely defined to include public rights-of-way, recreational, civic, commercial, and other non-residential uses so as to raise the bar for Regulated Projects to qualify for the LID Reduction Credits allowed in Provision C.3.e.ii, recognizing that the impervious surfaces associated with these areas are contributors of urban runoff pollutants to the storm drain. While these relatively more conservative gross density and FAR values may result in some Regulated Projects qualifying for</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>less LID Reduction Credit or not qualifying at all, it is an appropriate push to projects to complete relatively more-effective LID-based treatment.</p> <ul style="list-style-type: none"> <li>• The reporting data for Special Projects under the current permit shows that “lack of space to provide full LID stormwater treatment” is the most frequent reason invoked for why 100% LID treatment onsite is infeasible. Therefore, it is appropriate that the space reserved for public rights-of-way, recreation, civic, commercial, and other non-residential uses are included in the calculations for gross density and FAR, especially since many of these areas may be used for installation of LID treatment measures.</li> <li>• At the same time, Water Board staff is aware of high density projects that have appropriately incorporated LID controls to treat urban runoff, both in the Bay Area and other jurisdictions. Raising the bar on Special Projects makes it more likely that the need for LID treatment will be incorporated into the projects as an identified constraint early in their design processes, thus making it more likely that the treatment will be effectively implemented.</li> <li>• Board staff also recognizes that placemaking and well-designed spaces, while important for any project, are crucial as densities increase. Far from being a detriment to such design, LID measures can serve as key components of it, even in ultra-urban settings like San Francisco’s Mint Plaza, a public plaza, and high-density areas like Leland</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					Avenue in SF's Visitacion Valley neighborhood, which significantly incorporates LID measures into the public ROW, and various condominium/loft projects in Emeryville.	
CCCWP Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	21 36 19 19 25 16 22 13 10d 16 12 15 15 22	C.3.e.ii.	Alternative Compliance Special Projects FAR and Gross Density	<ul style="list-style-type: none"> <li>In at least one specific, documented case in Contra Costa County, a developer deleted a planned and negotiated pedestrian plaza from a development project in a downtown, pedestrian-oriented shopping area, so that the development would achieve the gross density required for C.3 "Special Projects" status.</li> <li>To avoid this disincentive for including pedestrian amenities, allow public plazas to be omitted from the calculation of project gross density and include the following recommended change for the definition of FAR: The ratio of the total floor area on all floors of all buildings at a project site (except structures or floors dedicated to parking) to the total project site area (excluding any area dedicated to public plazas).</li> </ul>	<ul style="list-style-type: none"> <li>Water Board staff recognizes that any number of constraints can influence a project's design and the development of that design. It is unlikely that the TO's proposed gross density definition, by itself, and in the absence of any other constraints (e.g., parking requirements, street section requirements, a project proponent's desire to maximize a project's financial return, etc.) caused the developer to eliminate a planned pedestrian plaza, because the definition is only a proposed requirement. Further, we understand the project in question is being considered under current Provision C.3.e. requirements, which allow the exclusion of pedestrian plazas in the calculation of density.</li> <li>Additionally, LID is a broad category of practices that includes practices, such as flow-through planters, that have been constructed in high-density redevelopment projects, including public plazas, where there is otherwise very limited space. That is, it is a category with significant design flexibility that is adaptable to a wide range of projects. It offers a significant opportunity for benefits separate from water quality, including improved placemaking, human-scale details, pedestrian/multi-modal user (e.g., bicyclist) safety, and high-quality</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>urban environments that enhance property values and the experience of pedestrians and others.</p> <ul style="list-style-type: none"> <li>• See response, above, to Belmont 5 Burlingame 6 Mountain View 2 San Bruno 6 San Jose 3, 21 San Mateo 6 SCVURPPP 17 SMCWPPP 10</li> </ul>	
San Jose	3, 21	C.3.e.ii.	Alternative Compliance Special Projects FAR and Gross Density	<ul style="list-style-type: none"> <li>• Special Projects align with Smart Growth concepts and provide holistic environmental benefits (stormwater quality, green-house gas emissions, and air quality) by reducing urban sprawl through high-density redevelopment, locating within walking/biking distance to public transit, and creating less "accessory" impervious areas associated with automobile-related uses.</li> <li>• In order to achieve the goals of smart growth, Special Projects often must enhance infrastructure such as public rights-of-way, public parks and recreational areas, and pedestrian access through public plazas. Incorporation of these elements into the Gross Density definition will discourage projects from</li> </ul>	<p>Water Board staff recognizes that Smart Growth projects are intended to achieve multiple benefits, which can include minimizing impacts to water quality. The cited project elements (e.g., public plazas, parks and recreation areas, and public rights-of-way) are often elements in which LID treatment can be located, and LID can serve as a significant project amenity in those elements, providing significant benefits in addition to water quality. While the presence of any project constraint has the potential to change project design as compared to if it was not present, the proposed Permit language appropriately balances the Clean Water Act-mandated need to protect water quality with implementation challenges; to the extent LID is present as a requirement, there is a greater likelihood Permittees will work with project proponents to ensure it is incorporated from the beginning of a project's design.</p> <p>Water Board staff concurs that projects are</p>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>incorporating them into designs.</p> <ul style="list-style-type: none"> <li>The definition proposed in the TO is counter to professional land use planning standards.</li> <li>Additionally, rights-of-way and civic areas are currently captured under the stormwater treatment requirements for roadway projects. Adding these areas into the density credit calculation would result in "double-counting."</li> <li>Use Net Density to calculate Special Project density credits, or change the definitions of Floor Area Ratio (FAR) and Gross Density such that they only include areas within the project boundary, and exclude public plazas, civic areas, and public rights-of-way.</li> </ul>	<p>also addressed by language in other parts of C.3. That is appropriate, as this subprovision addresses those instances when those related requirements may be relaxed.</p> <p>In addition, see response, above, to  Belmont 5  Burlingame 6  Mountain View 2  San Bruno 6  San Jose 3, 21  San Mateo 6  SCVURPPP 17  SMCWPPP 10</p>	
Walnut Creek	4	C.3.e.ii.	Alternative Compliance Special Projects FAR and Gross Density	<ul style="list-style-type: none"> <li>This Provision creates a substantial disincentive for smart growth development in suburban downtown areas, especially Walnut Creek, where, many years ago, the voters approved height restrictions that limit the ability for any development project to achieve the minimum density required in the TO.</li> <li>With the locally-imposed setbacks that the project applicant must consider and the other setbacks required by the California Building Code for fire</li> </ul>	<p>See response, above, to  Belmont 5  Burlingame 6  Mountain View 2  San Bruno 6  San Jose 3, 21  San Mateo 6  SCVURPPP 17  SMCWPPP 10</p> <p>and the response to  CCCWP 21</p> <ul style="list-style-type: none"> <li>We disagree that the Provision disincentivises smart growth, because</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>access and building egress, and utility requirements, the requirement in the TO mandating the construction of low impact development in these suburban downtown areas probably means that redevelopment, which will otherwise benefit water quality, will probably not be economically feasible.</p> <ul style="list-style-type: none"> <li>• For example, a mixed-use project in downtown Walnut Creek that is currently under construction includes in its frontage a public courtyard. Under the proposed definition in the TO, the project would have eliminated this important public amenity plaza as the project cannot meet the more restrictive gross density requirements.</li> </ul>	<p>smart growth is a combination of design approaches, not just limited to density and location, that together work to reduce the impacts of development. Rather, the Provision helps define what it means for a project to be considered a smart growth project. We urge the commenter to embrace the design opportunity LID provides for placemaking and high-quality urban and suburban design, including considering the numerous successful examples in the Bay Area and in cities like Portland, OR, Seattle, Philadelphia, New York City, Minneapolis, and elsewhere. Project examples like Leland Ave. in SF and the EcoTrust building in Portland show that LID can be incorporated into modest spaces in ways that significantly improve not only water quality, but provide substantial additional benefit; they can be touted by developers after the fact as elements that made their projects more desirable, valuable, and successful, thus increasing project feasibility. There is an opportunity for significant additional project value presented by LID controls. Thus, the concept that the potential marginal difference in project cost (i.e., the difference between the cost of LID treatment and the cost of non-LID water quality treatment) that could be attained by fitting a project into one of the special project categories would lead a proponent to remove key amenities is difficult to credit without supporting information that has not been provided.</p>	

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
ACCWP CCCWP Clayton Concord Danville Dublin El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	38 23 38 21 21 1 27 18 24 15 10f 18 14 17 17 24	C.3.e.ii.(2) C.3.e.v.(2)	Alternative Compliance Special Projects Infeasibility Analysis and Reporting	<ul style="list-style-type: none"> <li>Delete requirement to conduct and document infeasibility of LID treatment for Special Projects as it creates considerable additional effort for applicants and Permittees without any expected water quality benefit.</li> <li>Revise provision to make reporting less burdensome.</li> <li>The purpose of the Special Projects provisions is to incentivize projects that are beneficial at a watershed scale. Requiring Special Projects to first demonstrate LID infeasibility does little to incentivize these projects. And requiring Special Projects to demonstrate infeasibility for offsite LID treatment is vague and unnecessarily difficult.</li> </ul>	<ul style="list-style-type: none"> <li>The Board established LID treatment requirements in the MRP for all Regulated Projects in recognition of LID as a superior, cost-effective, beneficial, holistic, integrated stormwater management strategy. The documented benefits of LID establish it as a preferable approach to treating and reducing stormwater runoff because it is cost-effective, sustainable, and environmentally sound. LID treatment measures are effective because they can remove a broader range of pollutants in a more robust and redundant fashion, and can achieve multiple environmental and economic benefits in addition to reducing downstream water quality impacts, such as enhanced water supplies, cleaner air, reduced urban temperature, increased energy efficiency and other community benefits. Thus, there is a water quality benefit to implementing LID as opposed to other controls, and it is appropriate to require justification for situations when LID is not implemented.</li> <li>Provision C.3.e.ii.(1) of the MRP acknowledges that certain types of smart growth, high density, and transit-oriented development can reduce impervious areas and their auto-related impacts relative to other kinds of development. Given the relative reduction in potential water quality impacts from such developments, the MRP allows for incentive LID Treatment Reduction Credits to be applied to such projects. However, specific criteria have been established to limit: 1) the scope of</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>projects that qualify for such credits, and 2) the total credits that are allowed for any given project. The MRP tiering of LID Treatment Reduction Credits purposefully maximizes LID treatment for any given Special Project and minimizes the amount of runoff needing to be treated with non-LID measures. LID treatment measures have not been shown to increase cost or complexity of development projects.</p> <ul style="list-style-type: none"> <li>• The Special Projects provisions were not created to solely incentivize certain types of projects, but rather to allow these projects to treat runoff with non-LID measures, but only after LID treatment measures have been considered and maximized.</li> <li>• Therefore, infeasibility analysis of all LID treatment measures onsite, offsite, and a combination of onsite and offsite, is necessary to fulfill the intent of the Special Projects provisions, because it provides information demonstrating that those projects being categorized as Special Projects are providing the reduced environmental impacts (as compared to less-dense development) for which the category was intended.</li> <li>• Reporting is consistent with the Previous Permit. As such, the Permittees have existing procedures in place to collect and provide the information. Given the water quality benefits of LID over other forms of treatment, there is appropriate cause to require the reporting; maintaining the reporting will also avoid the need for Permittees to incur costs to</li> </ul>	



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					change their existing procedures.	
Dublin	3	C.3.e.ii.(3)(a)(iv), C.3.e.ii.(4)(a)(iv) C.3.e.ii.(5)(e)(i)b	Special Projects Parking Allowance	<ul style="list-style-type: none"> <li>• Special projects should be allowed to also include minimal incidental surface parking for commercial uses if the project is a mixed use project (i.e. residential with ground floor retail).</li> <li>• Revise to allow incidental surface parking for commercial uses (applicable for mixed-use projects- residential with ground floor retail).</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.e.ii.(1) of the MRP acknowledges that certain types of smart growth, high density, and transit-oriented development can reduce impervious areas and their auto-related impacts relative to other kinds of development. Given the relative potential reduction in water quality impacts from such developments, the MRP allows for incentive LID Treatment Reduction Credits to be applied to such projects. However, specific criteria have been established to limit: 1) the scope of projects that qualify for such credits, and 2) the total credits that are allowed for any given project. The MRP accomplishes this by establishing tiered LID Treatment Reduction Credits that take into account the size, land use type, location, density, and surface parking of the projects.</li> <li>• Increasing the allowed surface parking for commercial and mixed use projects to include incidental parking for commercial uses defeats the purpose of the established criteria for assigning LID Treatment Reduction Credits. Also, if space is available for commercial surface parking, there should be room for LID treatment and the Special Project Provision should not have to be invoked.</li> <li>• Additionally, LID is a broad category of practices that includes practices, such as flow-through planters, that have been constructed in high-density redevelopment projects where there is</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					otherwise very limited space. That is, it is a category with significant design flexibility that is adaptable to a wide range of projects.	
Water Board June 10, 2015 Hearing Transcript Rinta Perkins, Clean Water Program Manager Walnut Creek	Page 139 (Lines 20-25) Page 140 (Lines 1-7)	C.3.e.ii.(5)	Category C Special Projects Transit Oriented Development	<ul style="list-style-type: none"> <li>Our second concern, we'd like to ask that the criteria for transit-oriented development, or Category C of the Special Projects provision, be modified. The limits placed on the Location Credit within the Tentative Order are out of line with any transit-oriented development guidelines around the country, and particularly within our own region. As an example, Bay Area Rapid Transit (BART) has transit-oriented development guidelines that start at a half mile, while the Tentative Order is much more restrictive at a quarter mile. So we ask for your consideration on this issue. I thank you for your time.</li> </ul>	<ul style="list-style-type: none"> <li>This Provision establishes tiered LID Treatment Reduction Credits based on the location of transit-oriented development with the greatest credit (50%) given to development located within a ¼-mile radius of a transit hub and smaller credits (25%) given to transit-oriented development located within a ½-mile radius of a transit hub or within a Priority Development Area (PDA).</li> <li>This tiering directly reflects the concept that people are more likely to walk and take public transit if they live within a ¼-mile radius versus within a ½-mile radius.</li> <li>Category C appropriately acknowledges the value of transit oriented development located within a ½-mile radius but assigns less LID Reduction Credit to reflect the greater likelihood of developments located within closer proximity to transit hubs (within a ¼-mile radius) to decrease the use of automobiles and their accompanying contribution of pollutants to stormwater runoff.</li> </ul>	None
CCCWP Clayton Concord Danville Dublin El Cerrito	22 37 20 20 1 26	C.3.e.v.(1)	Alternative Compliance Special Projects Reporting	Delete requirement to track Special Projects that have been identified (application submitted) but not approved, as the number of projects, and amount of impervious area, has proven to be small.	<ul style="list-style-type: none"> <li>The reporting requirements provide Water Board Staff with early notice of the Special Projects that are being considered by Permittees prior to the Permittees granting final planning approval. This allows Water Board staff to validate a Permittee's analysis of each</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	17 24 15 10e 18 13 16 16 23				<p>Special Project and its assignment of appropriate LID Treatment Reduction Credits. During the Previous Permit, this data enabled Water Board staff to work with Permittees on several projects to obtain more-robust LID implementation than had originally been proposed.</p> <ul style="list-style-type: none"> <li>• Water Board Staff intends to use the data collected on Special Projects during this Permit term and the Previous Permit term to evaluate the necessity of the Special Projects criteria after the development and implementation of Green Infrastructure Plans during this and subsequent Permit terms.</li> <li>• The intent of the Special Projects provision is to allow LID Reduction Credits only for certain types of smart growth, high density, and transit oriented development. The number of projects and amount of impervious surface area are expected to be small compared to the total number of Regulated Projects. Therefore, this additional reporting is not onerous and applies only to a small subset of Regulated Projects and Permittees. Permittees not wishing to provide this option to project proponents also do not have to incur the tracking and reporting costs.</li> </ul>	
Belmont Burlingame San Bruno SMCWPPP	6b 7b 7b 11	C.3.g.	Hydro-modification Requirements Typos	<p>Correct the following typos:</p> <ul style="list-style-type: none"> <li>• C.3.g.i – Move items (1) through (3) to after the first paragraph in which they are referenced.</li> <li>• C.3.g.ii.(3) – change “charges” to “charts” In the first sentence.</li> </ul>	Comment noted.	Appropriate changes have been made to Provision C.3.g.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<ul style="list-style-type: none"> <li>C.3.g.vii.(5) – delete the last bullet that refers to the Impracticability Provision, which is not included in the TO.</li> </ul>		
Belmont Burlingame CCCWP Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Bruno San Mateo San Ramon San Pablo SMCWPPP	6a 7b 24 40 23 23 29 20 26 17 10h 20 16 19 7a 7 26 19 11	C.3.g.iv.	EO Approval of Hydro-modification Requirements	<ul style="list-style-type: none"> <li>Allow Permittees to propose a different method for sizing hydromodification management facilities that is not biased against LID and allow implementation without a Permit amendment.</li> <li>Note that the Fact Sheet states that EO approval would be required, not a Permit amendment.</li> <li>The administrative hurdle of a Permit amendment is unnecessary, as the method is consistent with the current HM standard (and it is the only requirement in the TO requiring an amendment), and will cause delay and uncertainty as to when the methodology can be used.</li> <li></li> </ul>	Comment noted.	<ul style="list-style-type: none"> <li>Provision C.3.g.iv. has been revised to allow for EO approval of any proposed variation in sizing methodology of hydromodification management facilities.</li> <li>Typos have been corrected.</li> </ul>
CCCWP Clayton Concord Danville El Cerrito Hercules Martinez Moraga Oakley	25 39 22 22 28 19 25 16 10g	C.3.g.vii.	Hydro-modification Requirements	<ul style="list-style-type: none"> <li>Under MRP 1.0, Contra Costa Permittees require applicable development projects to incorporate LID facilities (Integrated Management Practices, or IMPs) that provide both treatment and HM. This is different from other counties, where flow-duration-control detention basins are used,</li> </ul>	<ul style="list-style-type: none"> <li>Water Board staff has proposed to extend the deadlines for submittal of additional discussion and information regarding control measure design and effectiveness for hydromodification. The language allows the Contra Costa Permittees to continue to use existing sizing factors, and then requires that any changes associated with the submittal and Water Board review be incorporated</li> </ul>	Provision C.3.g.vii has been revised to allow for two years subsequent to Permit reissuance for these issues to be considered and addressed, and to more clearly describe the range of potential

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Orinda Pinole Pleasant Hill San Pablo San Ramon	19 15 18 18 25			<p>sometimes in series with LID facilities, to achieve HM requirements.</p> <ul style="list-style-type: none"> <li>• Under MRP 1.0, to show that their individual development project meets the HM standard, Contra Costa applicants may choose to apply a continuous simulation runoff model, with 30 or more years of hourly rainfall data, or they may use standard designs for IMPs with sizing factors. The sizing factors are derived from CCCWP's continuous simulation runoff model, and account for differing soil types and rainfall patterns at development sites.</li> <li>• Most applicants—particularly those for smaller developments—use the sizing factors.</li> <li>• Water Board staff commissioned an independent analysis of CCCWP's continuous simulation runoff model, including a review of default values for key model parameters and a comparison to the basin-oriented Bay Area Hydrology Model (BAHM) approach used in other MRP counties.</li> <li>• That study found that the CCCWP continuous simulation runoff model produced sizing factors that were overly</li> </ul>	<p>into the standards. Additionally, Provision C.3.g.iv already allows, as suggested by the commenters, the commenters to submit, as part of the Permittees collectively, a proposal for an alternate hydromodification management methodology, subject to the Executive Officer's acceptance.</p> <ul style="list-style-type: none"> <li>• As noted by the commenters, the Contra Costa Clean Water Program completed in September 2013 a review of its hydromodification modeling approach, including field work at two locations (five bioretention controls) in the Contra Costa Permittees' jurisdictions. While a completed report was submitted, Water Board staff is not yet able to concur with the report's conclusions, given limits on the field parameters that were observed, rainfall patterns, and related factors that call into question whether the report appropriately evaluates limiting conditions and how the results should be applied given those limitations. We have committed to provide written comments to the Contra Costa Permittees and the revised time period in the MRP should be sufficient to allow an appropriate discussion of next steps and completion of those next steps. In addition, the Provision has been revised to more clearly describe the range of possible results of the discussions, from no change to existing standards, to changes to sizing or design details, to use of other approved HMP methods.</li> </ul>	changes that could result from consideration of the issues.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>conservative, and stated that the results of the analysis “suggest that Contra Costa would do well to calibrate their [model] to local conditions.”</p> <ul style="list-style-type: none"> <li>• MRP 1.0 required CCCWP to conduct a model calibration and validation project to monitor the performance of IMPs built using the current (2009) standard designs and sizing factors. This study was completed during 2011-2013 at a cost of over \$300,000, and a final report was submitted with CCCWP’s Annual Report in September 2013.</li> <li>• The final report concludes: “This project demonstrated that the IMPs and sizing factors approved by the Regional Water Board in 2006—and updated in subsequent editions of the Guidebook—are adequate to meet current regulatory requirements.”</li> <li>• CCCWP has not received any comments from Regional Water Board staff on the September 2013 report.</li> <li>• As the designs and sizing factors meet the current standard, and the TO proposes that the same standard be continued in the coming Permit term, there is no need for an extension of time to use current</li> </ul>		

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>design standards. Nor is there any need for an additional technical report.</p> <ul style="list-style-type: none"> <li>• Rather, CCCWP should be allowed to continue to use the current sizing factors while collaborating with Permittees in other counties in a regional effort to update the methodology used to size HM facilities (direct simulation of erosion potential, as provided in proposed Provision C.3.g.iv.).</li> <li>• Delete requirement for Contra Costa Permittees to submit a technical report describing they will implement current hydromodification management requirements. CCCWP submitted a 2013 report on the results of a multi-year monitoring study that concluded current policies and criteria already meet these requirements.</li> </ul>		
ACCWP Livermore San Mateo Co	39 3 3	C.3.h.ii.(6)	O&M Requirements Inspection of Pervious Pavement Installations	<ul style="list-style-type: none"> <li>• This Provision requires the tracking and inspection of all pervious pavement systems that total 3,000 square feet or more. This as an unnecessarily burdensome requirement to track and inspect this one specific stormwater treatment measure.</li> <li>• The existing permit and the TO already require Permittees to develop and implement</li> </ul>	<ul style="list-style-type: none"> <li>• This inspection requirement has been incorporated to clarify that, where part of LID designs, pervious pavement systems are an important part of the designs, both because they perform a treatment function and because system failure or degradation in performance can have results such as bypassing untreated runoff to the storm drain and increases in runoff flows to downstream treatment controls, potentially exceeding their designs and resulting in insufficient</li> </ul>	None.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>comprehensive Operation and Maintenance (O&amp;M) programs to inspect stormwater treatment measures, so this provision should be deleted.</p> <ul style="list-style-type: none"> <li>• The added language demonstrates and codifies a suspicion of property owners that is unfounded and, in turn, places additional burden on municipalities with limited staffing and whose actions to recover costs are also limited.</li> <li>• While Permittees are currently successful in implementing O&amp;M requirements of the past permit, municipalities are not equipped for a large increase in O&amp;M Inspections of un-Regulated Projects.</li> <li>• Permittees can provide educational information on proper maintenance of pervious pavement to the property owner.</li> <li>• Remove the requirement to inspect impervious surface installations.</li> <li>• If such a requirement is adopted, allow property owners to have a civil engineer certify in writing every 5 years that the area of pervious paving is still there or was replaced with an equivalent measure.</li> </ul>	<p>project treatment of runoff.</p> <ul style="list-style-type: none"> <li>• The commenters' recognition that pervious pavement systems are treatment measures is appreciated.</li> <li>• Based upon Board staff's conversations with Permittees, it is our understanding that Permittees are already performing inspections, so this requirement should not add any substantial burden.</li> <li>• Although Permittees have stated to Board staff that O&amp;M inspections often include inspections of pervious pavement installations, the findings are not documented in the inspection reports or database. Thus, there was a significant gap in ensuring the effective implementation of LID controls.</li> <li>• The specified threshold is intended to ensure that Permittees are appropriately tracking and ensuring the maintenance of these systems. While 3,000 ft<sup>2</sup> can be larger than typical sizes for other treatment controls, such as bioretention cells or planter boxes, staff believe it is likely to appropriately capture significant pervious pavement system installations, while incorporating exclusions for installations, like backyard patios, where limited maintenance is unlikely to have significant water quality impacts. In addition, for installations where many small installed systems are likely to behave in a substantially similar way (e.g., many driveways in a residential subdivision), it allows inspection of a representative subset of the systems installed.</li> </ul>	



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<ul style="list-style-type: none"> <li>Staff is not proposing to revise the requirement simply to allow a civil engineer to certify the pervious pavement system is still there or was replaced by an equivalent measure, as that would not address whether the system is functioning as intended in the project's larger design.</li> </ul>	
ACCWP CCCWP Clayton Concord Danville El Cerrito Hayward Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Bruno San Jose San Pablo San Ramon SCVURPPP	39 26 41 24 8, 24 20 3 21 27 18 10i 21 17 20 9 22 20 27 19	C.3.h.ii.(6)(b)	O&M Requirements Minimum Annual Inspections	<ul style="list-style-type: none"> <li>Delete requirement to inspect 20% of Regulated Projects annually to allow flexibility in scheduling inspections.</li> <li>Cities need more flexibility in determining how many C.3. facilities will be inspected each year as long as they meet the criteria of inspecting each site once in five years.</li> <li>The language for inspection frequency is duplicative and should be simplified and clear such as "inspection once per permit term or once every five years."</li> </ul>	<ul style="list-style-type: none"> <li>The intent of requiring Permittees to inspect at least 20% of the total number of Regulated Projects is to ensure that the Regulated Projects are inspected at least once every 5 years and all the inspections will not take place in the 5th year. This requirement serves to prevent failed or improperly maintained systems from going undetected until the 5th year.</li> <li>This requirement does not interfere with the Permittees' current ability to prioritize their inspections and maintain flexibility.</li> <li>However, Board staff acknowledges that the Permittees may require more flexibility in how many inspections are done annually. It may be necessary to inspect certain projects annually or even, for projects with significant issues, at a greater frequency, at least until the issues have been resolved. At the same time, it is important that all projects are inspected at a minimum frequency, while providing appropriate flexibility; hence, the proposed change.</li> </ul>	Provision C.3.h.ii.(6)(b) has been revised to require Permittees to inspect an average of 20%, but no less than 15%, of the total number (at the end of the preceding fiscal year) of Regulated Projects, offsite projects, or Regional Projects.
Belmont Burlingame Clayton East Palo Alto	8, 9 9, 10 41 8	C.3.h.ii.(6)(b)	O&M Requirements Minimum Annual	<ul style="list-style-type: none"> <li>Changes were made to allow Permittee to track inspections by the number of sites instead of numbers of treatment/HM</li> </ul>	See response to comment immediately above ACCWP 39 CCCWP 26	Provision C.3.h.ii.(6)(b) has been revised to require Permittees to

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
San Bruno San Mateo San Pablo SMCWPPP	10 9 20 13		Inspections	<p>facilities, which was an improvement, but inspection of at least 20% of the total number of Regulated Projects is required each year.</p> <ul style="list-style-type: none"> <li>Permittees have requested more flexibility around that number while still meeting the requirement of inspection of each site at least once every five years.</li> <li>In addition, more flexibility needs to be given to those Permittees that only have a small number of sites, so that they do not have to inspect them more frequently than necessary.</li> <li>Change language to require inspection of "approximately 20%" of sites per year. Establish a minimum inspection frequency for each site of every two years.</li> </ul>	<p>Clayton 41 (etc.)</p> <ul style="list-style-type: none"> <li>This Provision requires a modest inspection schedule—as little as once every 5 years for some controls. That is already a sufficient amount of flexibility, regardless of the number of sites a Permittee may have, considering that many controls may need more-frequent inspection.</li> </ul>	inspect an average of 20%, but no less than 15%, of the total number (at the end of the preceding fiscal year) of Regulated Projects, offsite projects, or Regional Projects.
Belmont Burlingame East Palo Alto Mountain View San Bruno San Jose San Mateo SCVURPPP SMCWPPP	7 8 8 3 4,7 23 8 18 12	C.3.h.ii.(7)	O&M Requirements Enforcement Response Plan (ERP) Timeframe for Corrective Actions	<ul style="list-style-type: none"> <li>This provision requires that Permittees develop O&amp;M ERPs that specify corrective actions for identified problems with pervious pavement, treatment, and HM systems must be implemented within 30 days of identification, and if more than 30 days are required, a rationale must be recorded in the Permittee's inspection tracking database.</li> <li>The process of contacting and educating the property owner,</li> </ul>	<ul style="list-style-type: none"> <li>Thirty days is more than adequate time, considering that many of the problems identified in past O&amp;M inspection reports have been lack of maintenance service or build-up of sediment or debris. The correction of such deficiencies should not take more than 30 days.</li> <li>Provision C.3.h.ii.(1) requires Permittees to have a mechanism for requiring Regulated Project proponents or subsequent operators or owners to accept responsibility for the operation and maintenance of all installed pervious pavement systems (of 3,000 ft<sup>2</sup> or more),</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>allowing the property owner to arrange for maintenance work to be completed, and following up with an inspection typically, takes more than 30 days.</p> <ul style="list-style-type: none"> <li>• C.3 facilities are unique in that for the majority of cases, responsibility is transferred several times before final ownership (e.g., developer transfers to owner, who transfers to HOA, who contracts maintenance). Knowledge and understanding of C.3 treatment facilities and responsibilities to maintain are often not effectively conveyed throughout each transfer of ownership. This results in a longer process of identifying, contacting, and educating the property owner, allowing the property owner to arrange for maintenance work to be completed, and following up with a re-inspection, all of which typically takes more than 30 days.</li> <li>• Allow 90 days for completion of permanent corrective actions and more than 90 days when a site is actively working to resolve an issue, consistent with current practice for some Permittees.</li> </ul>	<p>stormwater treatment systems, and HM controls.</p> <ul style="list-style-type: none"> <li>• Additionally, Provision C.3.h.ii.(6)(a) requires Permittees to inspect all newly installed pervious pavement systems (of 3,000 ft<sup>2</sup> or more), stormwater treatment systems, and HM controls at the completion of installation.</li> <li>• Therefore, Permittees should have accurate information on the current operator or owner of these systems prior to or at the time of the inspections. Additional time to determine the responsible party should not be necessary so correction of O&amp;M deficiencies should not take more than 30 days.</li> <li>• This Provision also allows for greater than 30 days to complete actions that require a greater amount of time, with the recording of a rationale in the inspection database or recordkeeping system. Such actions could include permanent corrective actions, such as installing additional curb cuts and making grading or vegetation improvements.</li> </ul>	
Belmont Burlingame San Bruno	10 11 11	C.3.h.ii.(7) C.3.h.v.(4)	Typos	<p>Correct the following typos:</p> <ul style="list-style-type: none"> <li>• C.3.h.ii. (7) – begin first sentence with “Permittees shall</li> </ul>	Comment noted.	Appropriate changes have been made to these Provisions.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
SMCWPPP	13			<p>prepare and maintain..."</p> <ul style="list-style-type: none"> <li>C.3.h.v. (4) – Change "XX" Annual Report to "2017" Annual Report.</li> </ul>		
CCCWP	27	C.3.h.v.	O&M Reporting Requirements	<ul style="list-style-type: none"> <li>The reporting requirements of Provisions C.3.b and C.3.h. are poorly coordinated with each other and with the typical municipal development review process.</li> <li>During the MRP 1.0 term, this lack of coordination resulted in apparent anomalies in Permittee reporting, leading to Water Board staff inquiries and, on the Permittee side, time lost responding to those inquiries.</li> <li>The need to update C.3 reporting requirements was identified during MRP 2.0 negotiations, but was not followed through in time for issuance of the TO.</li> <li>Include authorization for the Permittees to collectively propose an updated reporting system, such as entry of project data to a publicly accessible relational database, and to implement the updated reporting system following EO approval.</li> </ul>	<ul style="list-style-type: none"> <li>In the initial early drafts of the current Permit, Board staff proposed requiring Permittees to report Regulated Projects in the Provision C.3.b. Reporting Tables until they were constructed and moved over into the complete Provision C.3.h. Reporting Tables (all Regulated Projects constructed listed).</li> <li>However, Permittees commented that this would be too burdensome and Board staff agreed to the current reporting requirements, where the C.3.b. Table only contains Regulated Projects approved during the reporting period and the C.3.h. Table only contains the Regulated Projects inspected during the reporting period (fiscal year).</li> <li>Permittees have established databases to generate the information required for the Provision C.3.b. and C.3.h. Reporting Tables and changes are not warranted based on one Permittee's comment.</li> <li>For the next Permit term, Permittees may collectively propose an updated reporting system.</li> </ul>	None
San Jose SCVURPPP	24 20	C.3.h.v.	O&M Reporting Requirements	<ul style="list-style-type: none"> <li>The change to track inspections by the number of sites instead of number of treatment/HM facilities will also make it</li> </ul>	The effective date has been revised per the commenters' request.	Appropriate changes have been made to establish an effective date of July 1, 2016,

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>challenging for Permittees to plan, conduct and report inspections during FY 15-16, when the tracking process changes midway through the fiscal year (assuming an effective date of December 1, 2015).</p> <ul style="list-style-type: none"> <li>Establish an effective date of July 1, 2016 for when Permittees change from tracking inspections by number of treatment/HM facilities to tracking by number of Regulated Project sites.</li> </ul>		for Provision C.3.h.ii.(6) and all requirements pertaining to pervious pavement systems in Provision C.3.h.ii.(1)-(5), C.3.h.iv., and C.3.h.v.
ACCWP	40a	C.3.i.	Small Projects	We support the proposal to retain the existing provisions concerning small projects.	Comment noted.	None
Baykeeper	6, 7	C.3.j.	Location and Design Standards to Achieve Wasteload Allocations	<ul style="list-style-type: none"> <li>Specify the location and design standards intended to achieve wasteload reductions.</li> <li>Alternatively, follow pathways similar to those pursued in Region 4 (Los Angeles), to develop watershed management programs that include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in the Basin Plan and do not cause or contribute to exceedances of receiving water limitations by retaining through infiltration or capture and reuse the storm water volume from the</li> </ul>	<ul style="list-style-type: none"> <li>Provisions C.11.d. and C.12.d. require the preparation of reasonable assurance analyses to ensure that wasteload allocations will be attained for mercury and PCBs, respectively. In those analyses, Permittees are required to: identify all technically and economically feasible control measures to be implemented; include an implementation schedule; and provide an evaluation and quantification of the load reduction of such measures and additional information. The reasonable assurance analyses will provide the specific location and designs the commenter seeks. Indeed, an important step in preparing the Green Infrastructure Plans and Reasonable Assurance Analyses will be to review available information to</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects.</p> <ul style="list-style-type: none"> <li>Review available information (on locations with high contaminant concentrations) to inform targeted wasteload reductions through installation of green infrastructure and other means.</li> </ul>	<p>inform targeted wasteload reductions through green infrastructure, and the Permit sets out a process to do that, including citing examples of tools, such as the San Francisco Estuary Institute's Green PlanIT tool, that are already piloting those analyses.</p> <ul style="list-style-type: none"> <li>In concert with the reasonable assurance analyses, the Green Infrastructure Plan and its associated tools will serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters. Thus, they are a program equivalent to the watershed management programs noted by the commenter.</li> <li>Provision C.3.j. specifies the minimum elements that must be included in each Green Infrastructure Plan. Board staff intentionally wrote the requirements with this minimum level of prescriptiveness to allow each Permittee the flexibility to develop a Green Infrastructure Plan suited for its unique jurisdiction. However, these Green Infrastructure Plans will be subject to Executive Officer approval to ensure that they are comprehensive, robust plans, and we have revised the Fact Sheet to incorporate guidance offered by U.S.</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>EPA based on lessons learned from the development of watershed management plans in Los Angeles.</p> <ul style="list-style-type: none"> <li>• One of the required elements is a mechanism to prioritize and map areas for potential and planned projects, both public and private, on a drainage-area specific basis for implementation over the same timeframes as specified in Provisions C.11. and C.12. for assessing load reductions. Each Permittee has flexibility in choosing the mechanism as long as it includes criteria for prioritization and outputs that can be incorporated into its long-term planning and capital improvement processes.</li> <li>• Another required element is that projects be designed to meet the treatment and hydromodification sizing requirements in Provisions C.3.c. and C.3.d.</li> <li>• Thus, the Permit requires appropriate analyses and implementation to ensure that urban runoff wasteload allocations for mercury and PCBs will be met.</li> </ul>	
Clayton  Orinda	9, 10, 11, 12, 13 2	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>• The TO assumes that current infrastructure will need replacing in the future. Clayton's curbs, gutters, and sidewalks are already set at ultimate location and no widening is planned in the future -- the public rights-of-way are fully built out.</li> <li>• Orinda, similarly, has limited right-of-way to accommodate and fit in Green Infrastructure features.</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan serves as a necessary implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</li> <li>• Provision C.3.j. specifies the minimum</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<ul style="list-style-type: none"> <li>• Further, with routine maintenance, curbs, gutters, and sidewalks easily last 100 years. Most of Clayton's sidewalks and curbs were installed in the 1980s, and therefore are expected to last another 75 years or more. Hence, in Clayton there are insufficient infrastructure improvement projects planned in the MRP 2.0 cycle that would replace such infrastructure in the future.</li> <li>• Many sidewalks in the Bay Area that were installed in the 1920s remain in fine shape. The TO suggests a city rip out perfectly good infrastructure, often paid by taxpayers, before the end of its useful life!</li> <li>• Therefore, this Provision needs to be modified to include an exception for cities that will not have any widening of streets or replacement of curbs, gutters, or sidewalks.</li> </ul>	<p>elements that must be included in each Green Infrastructure Plan. Board staff intentionally wrote the requirements to be flexible, and to allow each Permittee the flexibility to develop a Green Infrastructure Plan suited for its unique jurisdiction.</p> <ul style="list-style-type: none"> <li>• The Green Infrastructure Plan requirement was written as an alternative to proposing more-restrictive requirements for retrofit of existing urban infrastructure, such as streets. As such, the intent was to allow Permittees to identify and prioritize projects on their own, in part as a means of meeting urban runoff wasteload allocations for mercury and PCBs. In future Permit terms, and with the adoption of future TMDLs, it is possible that Green Infrastructure Implementation requirements may become more prescriptive, including requirements to retrofit existing infrastructure, but the Permit's intent is to guide Permittees to identify what they will accomplish. Future retrofit requirements may be appropriate, to the extent they address the significant water quality impacts of our built urban environment consistent with Clean Water Act requirements.</li> <li>• Although a Permittee may not have any plans to widen streets or replace curbs, gutters, and sidewalks, there should still be green infrastructure projects because the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public projects. Water Board</li> </ul>	



**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>staff recognizes that the understanding of what constitutes a desirable streetscape may change over time. As a result, it is inappropriate to assume that built infrastructure is necessarily fixed in place without change for 75 or 100 years. For example, many typical suburban and exurban street cross sections, stereotypically those built from the 1960s through the 1990s, have been identified as being dangerous to pedestrians, bicyclists, and other non-auto users, and as discouraging non-auto modes of transportation, because they have been built to maximize the efficiency of auto travel at the expense of other users. As a result, many jurisdictions are engaging in complete streets, green streets, new urbanist, and related planning efforts, during which there are opportunities to reduce the streets' impacts to water quality. Often, these efforts leave infrastructure largely in place, while only modifying it at key locations (e.g., with intersection bulb-outs for pedestrian safety that can also provide area for bioretention cells). Similarly, changes to transportation grants now require that certain grant applications include complete streets (i.e., multi-modal) designs; additional changes may result in grant funding being contingent on green street designs. Finally, current street designs, which typically quickly collect and discharge runoff to the storm drain and downstream creeks and the Bay, can shift significant costs—such as for flood</p>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					protection—to entities like flood control districts and away from the entities owning and maintaining the streets, Green infrastructure planning allows the different jurisdictions to think flexibly about the most efficient (and least expensive) means of accomplishing different goals. For example, where costs for maintaining or expanding the flood flow capacity of existing creeks may be prohibitive, green infrastructure may provide a more cost-effective option to meeting those objectives.	
Contra Costa Co	3, 4	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>• These major new mandates will require a significant, sustained effort to implement, absent any new or additional funding source.</li> <li>• The cost to develop a Green Infrastructure Plan to treat stormwater runoff from many impervious surfaces needs to be offset by a commensurate reduction in other NPDES requirements for stormwater pollution.</li> <li>• As part of the Green Infrastructure Plan, the County will be required to assess the unincorporated urban areas built between 1945 and 1980 for watershed/drainage areas, and the Transportation Division of the Public Works Department will need to rewrite the Capital Road Improvement Plan for these areas to include LID to</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms, in coordination with the reasonable assurance analysis plans required by Provisions C.11.d. and C.12.d., to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The GI Plan also sets goals for reducing over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</li> <li>• Board staff appreciates that the County is committed to developing the Plan.</li> <li>• Board staff understands the geographical extent involved for the County and the associated costs for developing and implementing the Plan.</li> <li>• The costs may be offset to a certain extent by grant funds, collaborating with other Permittees, incorporating green</li> </ul>	Provision C.3.j.i. and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>treat POCs. This will be a massive undertaking, involving the majority of the County's 17 unincorporated communities.</p> <ul style="list-style-type: none"> <li>• The County Watershed Program is fully supportive of developing this Plan. The County is planning to budget \$1,000,000 over five years to develop the GI Plan. The County will not only assess County roads, but also County buildings and properties as part of the Plan. The estimated cost to develop the Plan is \$200,000 per year the County cannot spend on other stormwater pollution reduction activities.</li> <li>• Implementation of the Plan in public road rights-of-way will be funded through funds used to build and maintain road infrastructure. Integration of GI features will not only radically increase the cost of capital road, sidewalk, and trail improvements; it will compete with road funds used to maintain the existing County roads. With more Road Funds being spent on GI features, less money will be available for road maintenance. The quality of the pavement will worsen, the risk of pavement failure will increase, which will require more money to repair. This will impact the safety and</li> </ul>	<p>infrastructure features into budgeted and future infrastructure projects, and through alternative compliance in-lieu fees from Regulated Projects.</p> <ul style="list-style-type: none"> <li>• The total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure projects so the burden for the total cost of implementing all these projects does not rest solely on the County.</li> <li>• Under the Clean Water Act, the maximum extent practicable standard is an evolving standard that does not necessarily include a zero-sum requirement for implementation of clean water practices by a Permittee under an MS4 permit. That is, development of a new approach must not necessarily be offset by reductions in other existing MS4 permit requirements, although Water Board staff has worked with Permittees to remove or reduce unnecessary and duplicative requirements.</li> <li>• Water Board staff recognizes that much of our existing road infrastructure was constructed without full consideration of its environmental impacts. One result of the Clean Water Act is that we work to gradually address such impacts, within the regulatory structure set up by the Act, including MS4 permits. This may have the effect of incorporating into roadway costs those external costs not originally addressed, and, as noted by the commenter, allowing the public to more clearly recognize those costs and</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				driving experience of the traveling public. Revenue for roads has been decreasing for some time, and is expected to decrease even more in the future.	determine how they will be funded. Green infrastructure planning may allow reductions in total costs and significant non-water quality benefits—for example, through incorporating measures that more inexpensively address not only water quality, but also downstream flooding (as compared to alternatives like engineered flood control channels), or which reduce pedestrian and related deaths and injuries by calming traffic, or which raise property values by developing a streetscape more desired by residents.	
Dublin	4	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>• There is a lack of direction and information for development of a Green Infrastructure Plan. There are no guidelines or reference plans that we can use to develop our own Plan. We are concerned that we will expend our limited resources on the development of such a plan, which will then be rejected by Water Board Staff as being inadequate.</li> <li>• Provide a single Plan example that meets Board's requirements. Or give specific direction on the development of the Green Infrastructure Plan. It is a common practice that the scientific research is conducted in advance of a regulation to ensure the efficacy of the law. In this case there is no such scientific backup.</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.j. specifies the minimum elements that must be included in each Green Infrastructure Plan. Board staff intentionally wrote the requirements with this minimum level of prescriptiveness to allow each Permittee the flexibility to develop a Green Infrastructure Plan suited for its unique jurisdiction.</li> <li>• There are comprehensive Green Infrastructure Plans that have already been developed for the cities of San Francisco and San Mateo that may be consulted as example Plans. Similarly, other municipalities in California, such as Los Angeles, San Diego, and Paso Robles, and numerous jurisdictions in combined sewer districts (e.g., Philadelphia, Kansas City, New York City, Milwaukee, Portland, Oregon, Seattle, Chicago, etc.) have developed green infrastructure plans or clean water plans with significant green infrastructure elements that could serve</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>to inform the preparation of the required Plan. All of these plans have a robust technical, or scientific, basis—often using mapping and modeling tools, in combination with data from laboratory and field studies on the performance of green infrastructure measures, including hydraulic performance and unit processes for pollutant removal. That information is used to address problems from combined sewer overflows, pollutants that impair water bodies, flooding, and related impacts. That is, their design is based on and informed by scientific and related analyses explaining how the plans, through their implementation actions, will address the specified impacts. The commenter’s statement that “there is no such scientific backup” is not correct.</p> <ul style="list-style-type: none"> <li>• Significant information on design standards and implementation approaches and costs is available both from Bay Area projects, such as the Permittees’ 10 green street retrofit projects implemented during the Previous Permit, the hundreds of clean water controls installed during the Permittees approval of private development projects, and the large numbers of low impact development controls installed in California and in many combined sewer jurisdictions in the U.S.—particularly Philadelphia, Portland, Oregon, and Seattle. While there is ongoing work on low impact development designs (e.g., bioretention soil specifications, design particulars to</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>address specific pollutants, etc.), there is no shortage of existing design guidance and specifications, including the existing technical guidance documents prepared by the countywide stormwater programs in the Bay Area.</p> <ul style="list-style-type: none"> <li>• In addition, Plan development is likely to be informed by the preparation of reasonable assurance analyses (RAAs) required under Provisions C.11.d. and C.12.d., which must demonstrate how Permittees will achieve urban runoff wasteload allocations for mercury and PCBs. On September 23, 2015, Water Board and U.S. EPA staff hosted an RAA workshop, attended by numerous Permittee and storm water program representatives, at which case studies of existing California RAAs, which included significant green infrastructure components, were presented. Water Board and U.S. EPA staff will continue to work with Permittees to provide additional and updated guidance on RAAs.</li> <li>• Existing C.3 Permit requirements (e.g., for impervious surface project thresholds requiring implementation of low impact development measures) are likely to significantly inform the Plans.</li> <li>• As such, Permittees have significant information available to help prepare GI Plans, while having a flexible Permit requirement allowing them to adapt their plan to their particular jurisdiction. Water Board staff concurs that communication during Plan development will be</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					important.	
East Palo Alto	12	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>Develop guiding principles that Permittees can use to voluntarily implement green infrastructure into projects as they are being built, so that design standards can be further tested and cost implications can be better understood prior to full implementation, with the option of using the voluntary infrastructure for future permit terms.</li> <li>Efforts during the MRP 2.0 term should focus on development of long- term Green Infrastructure Plans and opportunistic implementation of green infrastructure projects where feasible and where funding is available in the near term.</li> </ul>	<ul style="list-style-type: none"> <li>This Provision requires Permittees to focus on development of the Green Infrastructure Plans and during the Permit term, to identify opportunities for implementation of green infrastructure projects or addition of green infrastructure elements in infrastructure projects where feasible and funding is available.</li> <li>In addition, see response, immediately above, to Dublin 4.</li> </ul>	None
Hayward Santa Clara Co	4 9	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>The Green Infrastructure Plan requirement has no clear feasible pathway to attain compliance.</li> <li>City planning is not directed by pollutant reduction but focused on orderly growth and public safety. Permittees can incorporate green infrastructure where feasible, but will require more time and guidance from the Water Board to meet the intent of the Permit.</li> <li>The TO imposes a vague and ambiguous path for the County's</li> </ul>	<ul style="list-style-type: none"> <li>See responses, immediately above, to: Dublin 4 East Palo Alto 12 Clayton 14 and Contra Costa 23.</li> <li>See U.S. EPA's Attachment A at the end of the Provision C.3. Response to Comments Table for U.S. EPA's suggested list of specific elements to include in Green Infrastructure Plans.</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				compliance with both green infrastructure implementation and related Mercury and PCB reductions.		
U.S. EPA	15, 18-20	C.3.j.	Requirement to Develop Green Infrastructure Plan	<ul style="list-style-type: none"> <li>EPA is a strong proponent for Green Infrastructure Plans in MS4 permits. We see multiple benefits from developing and implementing them, including pollutant removal, decreased flood risk, greener urban landscape, increased habitat, and, potentially, infiltration for groundwater replenishment.</li> <li>To facilitate understanding of what is expected of Permittees, we encourage the Water Board to define the minimum and recommended components of GI plans in the permit's Fact Sheet.</li> <li>Also, we believe the Water Board should, in the permit, establish its ability to reject GI plan submittals if found deficient; the Water Board need not approve each submittal.</li> <li>See U.S. EPA's Attachment A at the end of the Provision C.3. Response to Comments Table for U.S. EPA's suggested list of specific elements to include in Green Infrastructure Plans.</li> </ul>	<ul style="list-style-type: none"> <li>Board staff appreciates U.S. EPA's comments and support of Green Infrastructure Plans.</li> <li>The suggested elements in U.S. EPA's Attachment A have been included in their entirety at the end of the Provision C.3. Response to Comments Table and incorporated into the C.3 Fact Sheet section as a reference for the Permittees.</li> <li>Board staff concurs that there should be an approval or disapproval mechanism for the Green Infrastructure Plans included in this Provision.</li> <li>See also the responses, above, to: Dublin 4 and East Palo Alto 12.</li> </ul>	Provision C.3. j.i.(2) in the revised TO now states that the Green Infrastructure Plans are subject to Executive Officer approval. In addition, U.S. EPA's Attachment A has been incorporated into the C.3 Fact Sheet as guidance.
Walnut Creek	2, 3	C.3.j.	Requirement to Develop Green Infrastructure	<ul style="list-style-type: none"> <li>Walnut Creek supports the ultimate goal of significantly reducing the amount of urban</li> </ul>	<ul style="list-style-type: none"> <li>The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j.i. and ii. have been revised to reflect that the</li> </ul>



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
			Plan	<p>runoff pollutants flowing into receiving waters. However, the TO mandates each Permittee implement a Green Infrastructure Plan on an individual project level and imposes unachievable deadlines.</p> <ul style="list-style-type: none"> <li>• Many city streets have only a 50' right-of-way. This is not sufficient width to comply with the complete streets requirements to provide safely for all modes of transportation and to provide the bioswales that are required by the TO. We must have some flexibility to balance all community needs and requirements with the need to meet water quality standards.</li> <li>• Mandating the proposed green infrastructure requirements on cities such as Walnut Creek, which have very low potential for PCBs and mercury, is not fiscally responsible.</li> <li>• Permittees are in the best position to determine the right balance for their communities. LID facilities should be constructed where they make sense but not at the cost of needed community facilities.</li> <li>• Finally, if you retain these unrealistic requirements, the language in Provision C.11 (Mercury Reduction) and C.12</li> </ul>	<p>during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</p> <ul style="list-style-type: none"> <li>• The costs may be offset to a certain extent by grant funds, collaborating with other Permittees, incorporating green infrastructure features into budgeted and future infrastructure projects, and through alternative compliance in-lieu fees from Regulated Projects.</li> <li>• The total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure projects so the burden for the total cost of implementing all these projects does not rest solely on the City.</li> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities should be constructed, and which kinds of LID facilities are appropriate. For example, the commenter identifies an instance, where the commenter may not want to incorporate bioswales, a linear feature, into streets with a constrained right of way. The planning approach set</li> </ul>	<p>total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</p> <ul style="list-style-type: none"> <li>• Revisions have been made to the dues dates and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11. and C.12.</li> </ul>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>(for PCBs reduction) should be consistent.</p> <ul style="list-style-type: none"> <li>Because it requires significant investment on the part of all Permittees, we ask that the Board consider limiting the efforts for MRP 2.0 to planning at the regional level only.</li> </ul>	<p>forth in this Provision gives Permittees the flexibility to prioritize the right places for LID measures and right kinds of LID measures for each place. It does not specify that bioswales must be constructed in all streets with 50' rights of way.</p> <ul style="list-style-type: none"> <li>This Provision also allows Permittees to collectively propose an alternative approach to various scenarios where LID treatment in compliance with Provision C.3.d. is not feasible.</li> <li>Board staff concurs that the timelines in this Provision should be better aligned with the deadlines specified in Provisions C.11. and C.12, and has revised them to better align.</li> <li>It is unclear why the commenter believes its jurisdiction has a low potential for mercury discharge, as mercury accumulation and subsequent discharge in urban runoff has a significant atmospheric deposition component. Regardless, there are significant urban runoff impacts from the substantial areas of all Permittees' jurisdictions that have not been addressed by clean water controls. The Green Infrastructure Plans represent an opportunity for Permittees to think through how they will address those impacts over time.</li> <li>While the Provision requires Permittees to individually prepare Green Infrastructure Plans, it provides the option for significant aspects of those plans to be developed on a group basis</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>(e.g., green street specifications), and there will likely need to be communication on a regional level to ensure wasteload reductions are being appropriately addressed. At the same time, it is likely that individual Permittees have much of the information necessary for plan development within their jurisdiction (rather than it being available regionally), as well as a desire to make decisions themselves regarding prioritization within their jurisdiction. Thus, there is a necessary non-regional component to the plans.</p> <ul style="list-style-type: none"> <li>• See also the responses, above, to: Dublin 4 and East Palo Alto 12.</li> </ul>	
Livermore Clayton	4 7a	C.3.j.	Unfunded Mandate Requirement to Develop Green Infrastructure Plan	<p>This provision is seriously flawed, fails to consider all of the associated financial costs to Permittees, fails to recognize the funding limitations and constraints faced by Permittees, and goes well beyond the scope of "maximum extent practicable," thus creating an unfunded mandate.</p>	<ul style="list-style-type: none"> <li>• These requirements stem from federal Clean Water Act § 402(p)(3)(B)(ii)-(iii), and are not an unfunded State mandate.</li> <li>• Additionally, they are consistent with the maximum extent practicable standard, which is an evolving standard that is an iterative, evaluative process that includes, but is not limited to, factors such as the conditions of receiving waters, climate, hydrology, and the technical and economic feasibility of particular practices. Indeed, Provision C.3.j has been intentionally written to provide Permittees the flexibility to appropriately incorporate MEP concerns into their GI Plans, while still meeting Permit requirements.</li> </ul>	None
Union City	1	C.3.j.	Unfunded Mandate Requirement to	<ul style="list-style-type: none"> <li>• The TO requires preparation and implementation of a Green Infrastructure Plan to facilitate</li> </ul>	<ul style="list-style-type: none"> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects</li> </ul>	Provision C.3.j.i. and ii. have been revised to reflect that the total

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
			Develop Green Infrastructure Plan	<p>the inclusion of LID drainage design into storm drain infrastructure on public and private lands, including streets, roads, storm drains, parking lots, building roofs.</p> <ul style="list-style-type: none"> <li>• Union City is largely built out and inclusion of LID drainage design features into the City's existing infrastructure and buildings is not feasible due to the substantial costs associated with the retrofit of existing facilities necessary to satisfy this requirement.</li> <li>• In addition, the amount of staff time related to project management and public outreach would also be significant.</li> <li>• Union City has experience with installing these types of improvements and the associated costs and related impact on staff resources. The City is currently in the process of retrofitting portions of three existing streets to install rain gardens, which is one of the primary ways of treating stormwater runoff from roads and satisfying the provisions listed in Section C.3.j. The combined street length of the projects is approximately 1.5 miles with a total estimated construction cost of approximately \$9.5 million. This</li> </ul>	<p>within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed.</p> <ul style="list-style-type: none"> <li>• As green infrastructure details become the standard approach for street construction (or reconstruction), costs will drop, although Water Board staff recognizes that retrofit of already-constructed urban infrastructure is typically more costly than "greenfield" infrastructure. In developing the Permit requirements, staff considered cost information such as that from State grant-funded projects, as well as those in other areas, including, but not limited to, Portland, Oregon. The significant shift to, for example, green streets design, from designs that don't substantively address their water quality impacts, will result in a concomitant shift over time in the MEP standard for street design.</li> <li>• These requirements stem from federal Clean Water Act regulatory drivers, and are not an unfunded State mandate.</li> <li>• The commenter's comment also implies a false choice—the idea that there is a choice between either addressing the existing water quality impacts of built infrastructure and urban areas (e.g., via LID retrofit), or simply not doing it and leaving the water quality impacts in place. To the extent the impacts must be addressed under Clean Water Act requirements, the option is not whether,</li> </ul>	<p>number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</p>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>equates to approximately \$6.5 million per mile to install this type of drainage improvement within an existing street.</p> <ul style="list-style-type: none"> <li>• The City is currently developed with 237 miles of roadways. At an average cost of \$6.5 million per mile, it would cost the City approximately \$1.5 billion to retrofit its existing streets to install these types of facilities throughout the City. In addition, the City has expended substantial staff time for management of these projects as well as outreach to the public since these types of projects typically result in temporary disruption to the neighborhood from construction activities as well as permanent impacts such as displacement of parking, removal of trees, and the need for additional right-of-way.</li> <li>• This is just one practical example of the substantial financial burden that the proposed Green Infrastructure requirement places on cities. Without associated funding to support these activities, the requirements under Section C.3.j. results in an unfunded mandate.</li> <li>• Union City is supportive of incorporating these types of improvements into new streets and buildings as they are</li> </ul>	<p>but rather how to address them, and green infrastructure planning is intended to be a flexible approach that maximizes the Permittees' ability to plan best for their own jurisdictions. It has been proposed as an approach as an alternative to more-prescriptive retrofit requirements.</p> <ul style="list-style-type: none"> <li>• See also the Responses, above, to: Clayton 9, 10, 11, 12, 13 Dublin 4 and East Palo Alto 12.</li> </ul>	

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				constructed but strongly objects to application of this Provision to existing facilities and buildings.		
Water Board June 10, 2015 Hearing Transcript Mayor Laura Hoffmeister Concord	Page 73 (Lines 20-25) Page 74 (Lines 1-9)	C.3.j.i.(1)	Green Infrastructure Framework	<ul style="list-style-type: none"> <li>We hope that the resolutions that many of the Cities have already adopted supporting complete streets that have been submitted to Metropolitan Transportation Commission would be the higher level buy-in that you're speaking of about the Electeds understanding complete streets includes Green Infrastructure. Many, many of the jurisdictions have passed those resolutions in order to receive MTC funding for their streets projects, which would allow us to meet that one-year timeframe for Green Infrastructure very quickly by allowing that to be an opportunity for compliance. And I would ask that you maybe have staff see if that can be worked into the Permit as an option.</li> </ul>	<ul style="list-style-type: none"> <li>The document that requires approval by each Permittee's governing body, mayor, city manager, or county manager ("the Electeds") is the framework or workplan that describes specific tasks and timeframes for each Permittee to develop its Green Infrastructure Plan.</li> <li>If any resolution passed by the "Electeds" in a City can serve as a framework or workplan that adequately describes specific tasks and timeframes for developing the Green Infrastructure Plan, then that resolution can be used to satisfy this requirement. It seems unlikely that a resolution supporting complete streets, by itself, would constitute the framework and buy-in, because complete streets refers to street designs that are multi-modal (i.e., accommodate users of different kinds of transportation, such as pedestrians, bicyclists, cars, and mass transit). However, complete streets design does not necessarily include green street/green infrastructure design. Additionally, by itself, support for complete streets doesn't encompass the range of tasks associated with completion of a green infrastructure plan, which are described in Provision C.3.j.</li> </ul>	None
ACCWP Berkeley	28 25, 26	C.3.j.i.(1)	Green Infrastructure Framework	<ul style="list-style-type: none"> <li>Extend the time for submittal of the required framework to 24 months from the Permit</li> </ul>	<ul style="list-style-type: none"> <li>Board staff concurs that more time should be allotted for development and approval of the framework for the Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j.i.(1) has been revised to allow more time for</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Cupertino Emeryville Fremont Hayward Mountain View Santa Clara Co SCVURPPP	6 101 7 4 6 7 22		Due Date	<p>effective date because most Permittees will need to have the framework approved by their governing bodies rather than the city or county manager.</p> <ul style="list-style-type: none"> <li>Developing a framework for approval by a governing body will require significant time and resources, and coordination and cooperation among various agencies with often conflicting priorities and constraints.</li> <li>The new Green Infrastructure approach and requirements will require significant financial resources and in-depth discussion and planning efforts by local agencies over upcoming years. The new Green Infrastructure Plan could cost between \$300,000 and \$500,000 for Berkeley to prepare, reducing funding available for construction of Green Infrastructure.</li> <li>This new requirement will reduce funding available for construction of green infrastructure projects. Based on Berkeley's experience to date, the preparation of the plan will result in the elimination of two to four plant-based green infrastructure sites throughout the City that would have otherwise been built. These efforts will significantly affect many areas</li> </ul>	<p>While we recognize the necessity of and benefit to the Plan of coordination between agencies and departments, completion of a framework (i.e., as opposed to completion of the Plan itself) should not require two years. We have revised the proposed provision language to allow until June 30, 2017, more than 19 months from the Permit's expected adoption date.</p> <ul style="list-style-type: none"> <li>The time and expense to prepare the required plans are appropriate and likely a better alternative to a more-prescriptive requirements, such as for retrofit or to ensure treatment of flows from every discharge point into a receiving water.</li> <li>See also the responses, above, to: Clayton 9, 10, 11, 12, 13 Dublin 4 East Palo Alto 12 and Union City 1</li> </ul>	<p>development and approval of the framework for the Plan.</p> <ul style="list-style-type: none"> <li>Provision C.3.j.i and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				of municipal government. Stated differently, this will be a major commitment for Permittees extending many years into the future.		
Belmont Brisbane Burlingame CCCWP East Palo Alto Pinole San Bruno San Carlos San Pablo SCVURPPP SMCWPPP	13a 5a 14a 29 11a 2 14a 4a 4 96 15	C.3.j.i.(1)	Green Infrastructure Framework Due Date	<ul style="list-style-type: none"> <li>A very short timeframe is given to develop a framework for the Green Infrastructure Plan, given the effort required to coordinate and educate internal departments, educate upper level staff and elected officials, prepare the framework, conduct resource planning, and accommodate lead times for bringing the framework to governing bodies.</li> <li>Provide additional time to complete and obtain governing body approval of the Green Infrastructure Plan framework and extend the deadline to the required reporting date of September 15, 2017 (21½ months after Permit effective date).</li> </ul>	See response, immediately above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.)	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.
Clayton Concord Daly City Dublin	7b 2b 5 7	C.3.j.i.(1)	Green Infrastructure Framework Due Date	Timeline for developing framework for Green Infrastructure Plan is unrealistic in regards to actual local governmental time frames and related budget processes which include notices and public meetings, etc.	See response, above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.)	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.
Clayton Concord	42 25	C.3.j.i.(1)	Green Infrastructure	Extend the time for submittal of the required framework to a	See response, above, to ACCWP 28	Provision C.3.j.i.(1) has been revised to



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Danville El Cerrito Hercules Martinez Moraga Oakley Orinda Pinole Pleasant Hill San Pablo San Ramon	25 31 22 28 19 10j 22 18 21 21 28		Framework Due Date	minimum of 20 months after the Permit effective date.	Berkeley 25, 26 Cupertino 6 (etc.)	allow more time for development and approval of the framework for the Plan.
El Cerrito	9	C.3.j.i.(1) C.3.j.i.(1)(a)	Green Infrastructure Framework Due Date Mechanisms for Prioritization	<ul style="list-style-type: none"> <li>The proposed Green Infrastructure Plan framework schedule with development and approval within one year is exceedingly aggressive considering its complexity.</li> <li>Prioritization and mapping of potential projects would be a major resource intensive effort that may require more than two years.</li> </ul>	<ul style="list-style-type: none"> <li>See response, above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.)</li> <li>Board staff concurs that more time should be allotted for prioritization and mapping of potential projects.</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.</li> <li>The 2-year deadline in Provision C.3.j.i.(1)(a) has been deleted.</li> </ul>
Livermore	5	C.3.j.i.(1)	Green Infrastructure Framework Due Date	This task will be an extensive, resource-intensive effort, which cannot be achieved in such a short timeframe. The schedule for completion should be extended to 36 months at a minimum.	See response, above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.)	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.
San Ramon	7	C.3.j.i.(1)	Green Infrastructure Framework Due Date	<ul style="list-style-type: none"> <li>Twelve months is a very short timeframe given the effort needed to coordinate and educate staff and elected officials, prepare the framework, conduct resource</li> </ul>	See response, above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.)	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>planning, and accommodate lead times to bring elements of the framework to the City Council for adoption.</p> <ul style="list-style-type: none"> <li>We ask for an extension to the deadline for a range of two to three years after adoption of the permit.</li> </ul>		Plan.
U.S. EPA	16	C.3.j.i.(1)	Green Infrastructure Framework	EPA supports the draft MRP requirements for Permittees to develop frameworks for Green Infrastructure Plans.	Comment noted.	None
Clayton	8	C.3.j.i.(1)	Green Infrastructure Framework and Plan	<p>The creation of both a framework and plan will require Clayton to contract with outside engineering services, since we contract for this public service and do not have in-house credentialed staff to undertake such efforts, nor even the funds to hire such!</p>	<ul style="list-style-type: none"> <li>The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impact of urbanization and urban runoff on receiving waters.</li> <li>The costs may be offset to a certain extent by grant funds or collaborating with other Permittees.</li> <li>See also the response, above, to: Contra Costa Co. 3, 4 and ACCWP 28.</li> </ul>	None
Clayton Contra Costa Co Emeryville	14 23 101	C.3.j.i.(1) C.3.j.i.(4)	Green Infrastructure Framework and Plan Due Dates	<ul style="list-style-type: none"> <li>Implementation of the Green Infrastructure (GI) Plan will take longer to initiate than the interim and final timelines in the MRP TO.</li> <li>The development of Green</li> </ul>	<ul style="list-style-type: none"> <li>Board staff concurs that more time should be allotted for development and approval of the framework for the Plan.</li> <li>Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past</li> </ul>	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>Infrastructure Plan will take at least the full permit term to complete. It is a monumental planning effort that will require a paradigm shift by cities and counties regarding roads and stormwater runoff from them. Many of unincorporated Contra Costa County communities developed during the 1945 to 1980 period that will be the focus of the GI Plan. Many of these communities are closely intertwined with adjacent cities. This will require coordinated efforts with several cities, which only complicates the planning effort. Furthermore, many unincorporated communities lay within the hills or near the Delta/Bay margins, where drainage is particularly challenging to treat. Five years to develop a new plan to treat road run off may not be adequate.</p> <ul style="list-style-type: none"> <li>• The time frame for submitting a Green Infrastructure framework needs to be altered for submittal with the Annual Report filing in September 2018, and the Green Infrastructure Plan filed with the Annual Report in September 2019.</li> </ul>	<p>experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019 Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan is too much time and prevents any of the Plans from being used by Board staff to inform the development of the MRP in the next Permit term.</p>	
BASMAA Concord Danville	4 2a 2, 3	C.3.j.i.(1) C.3.j.i.(1)(a) C.3.j.i.(4)	Green Infrastructure Framework and	<ul style="list-style-type: none"> <li>• The TO includes a new mandate to develop Green Infrastructure Plans. This</li> </ul>	<ul style="list-style-type: none"> <li>• See above response to ACCWP 28 (cost) and Clayton 14</li> <li>• SFEL's Green Plan-IT tool was included</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.j.i.(1) has been revised to allow more time for</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
El Cerrito Hercules Lafayette Martinez Moraga Oakley Pinole San Pablo SCVURPPP	2a 2, 3 2, 3 2, 3a 4 4 1a 2 24, 86		Plan Due Dates Mechanisms for Prioritization	<p>coordinated, multi-year effort represents a significant paradigm shift toward developing comprehensive long range plans that will significantly reduce the amount of urban runoff pollutants, including the pollutants of concern, flowing into receiving waters.</p> <ul style="list-style-type: none"> <li>The requirements to develop a Green Infrastructure framework and Plan will require significant investment and will require major, resource-intensive and sustain efforts to implement, for which Permittees have not budgeted and yet have deadlines within one and two years, respectively and have no new funding source.</li> <li>Additional time is necessary for both tasks and the mechanism to develop the Plan should include other tools less complex than Green Plan-IT to keep local jurisdictional costs down.</li> </ul>	<p>as an example, not a requirement. Each Permittee has flexibility in choosing the mechanism, as long as it acceptably includes criteria for prioritization and outputs that can be incorporated into the Permittee's long-term planning and capital improvement processes. Examples of approaches other municipalities have taken, and modeling tools they have used, including in Los Angeles, Paso Robles, San Diego, and at Lake Tahoe, were presented at the recent September 23, 2015, U.S. EPA/Water Board workshop on reasonable assurance analyses. It is likely that many of those approaches could be appropriately adapted to implementation in the Bay Area under the Permit.</p>	<p>development and approval of the framework for the Plan.</p> <ul style="list-style-type: none"> <li>Provision C.3.j.i.(2)(a) has been revised to include the phrase "or another tool" along with SFEI's Green Plan-IT as examples of mechanisms to prioritize and map areas for potential and planned green infrastructure projects.</li> </ul>
Pittsburg	2	C.3.j.i.(1) C.3.j.i.(1)(a)-(c) C.3.j.i.(4)	Green Infrastructure Framework and Plan Due Dates Mechanisms for Prioritization Targets for Retrofit	<ul style="list-style-type: none"> <li>The provision as written is unclear as to what deliverables are expected within the first two years, a "framework" for a Green Infrastructure program or a completed "plan."</li> <li>The requirement to create a prioritization map for potential projects based upon drainage areas will require valuable</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j. has been revised to provide more clarity on the distinction between the "framework or workplan for the Green Infrastructure Plan" and the Green Infrastructure Plan itself and on the expected deliverables.</li> <li>The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j. has been revised to provide more clarity on the distinction between the "framework or workplan for the Green Infrastructure Plan" and the Green</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>resources for an effort which has little to no benefit for water quality.</p> <ul style="list-style-type: none"> <li>• More clarification is needed regarding the expected deliverables, and more flexibility should be given for mechanisms by which Permittees track progress toward these goals. The referenced "targeted" dates for retrofit of impervious surfaces should instead be revised to "projections", as the proposed timeframes are unreasonable. Given the amount of effort required to produce this deliverable, additional time is requested for the first submittal.</li> </ul>	<p>to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing over the long term, the adverse water quality impact of urbanization and urban runoff on receiving waters.</p> <ul style="list-style-type: none"> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed. Using map-based analysis is a key aspect to developing and communicating an understanding of how plans will address the prioritization and implement projects over time, including in combination with tools like McHargian overlay analysis.</li> <li>• The Green Infrastructure Plan is intended to describe how Permittees will shift their impervious surfaces and storm drain infrastructure from gray (traditional) to green. That is, the Plan should describe how the Permittees will change over time infrastructure that directs runoff directly into storm drains and receiving waters to green infrastructure that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, promotes infiltration and evapotranspiration, and uses bioretention and other green</li> </ul>	<p>Infrastructure Plan itself and on the expected deliverables.</p> <ul style="list-style-type: none"> <li>• Provision C.3.j.i. and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</li> <li>• Revisions have been made to the due dates and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11. and C.12.</li> </ul>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>infrastructure practices to treat stormwater runoff.</p> <ul style="list-style-type: none"> <li>• Therefore, one of the required elements for the Plan is for Permittees to self-determine and establish “targets” for the amount of impervious surface to be retrofitted with green infrastructure. “Targets” is more appropriate than “projections” because the purpose of this required element is to require Permittees to proactively identify green infrastructure work that they will complete beyond what would happen anyway.</li> <li>• Board staff concurs that the time schedules for meeting these targets should be consistent with the timeframes for assessing mercury and PCB load reductions specified in Provisions C.11. and C.12, and has revised the Permit language to make the schedules consistent.</li> </ul>	
San Jose	5, 26	C.3.j.i.(1) C.3.j.i.(4)	Green Infrastructure Framework and Plan Due Dates	<ul style="list-style-type: none"> <li>• While San Jose supports the move to a holistic planning approach for green infrastructure and is already moving forward on a number of related efforts (e.g., a Storm Sewer Master Plan), San Jose has concerns regarding the deadlines, level of effort, and potential costs associated with development and implementation of a Green Infrastructure Plan.</li> <li>• The TO requires Permittees to develop and obtain governing</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</li> <li>• The costs may be offset to a certain extent by grant funds or collaborating with other Permittees.</li> </ul>	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>body approval of a framework within 12 months of the permit effective date. Given the size and complexity of San Jose and the extent of interdepartmental coordination required to develop a framework, the 12 month timeline is too short.</p> <ul style="list-style-type: none"> <li>• Allow at least 18 months for Permittees to complete these tasks and to require Permittees to submit the framework no earlier than the second Annual Report due under the permit.</li> <li>• Also, allow the full permit term for Permittees to develop Green Infrastructure Plans and focus on implementation of the plans in the following permit.</li> </ul>	<ul style="list-style-type: none"> <li>• In working with Permittees and other interested stakeholders to develop the Green Infrastructure Plan language, Water Board staff considered that green infrastructure planning would be a cost in addition to current efforts under the Previous Permit. Staff also considered cost data and lessons learned from the Bay Area and other areas, including storm water grant budget data and reported project costs and cost estimates, and how those can change over time as project proponents, contractors, and related parties become more experienced in implementing green infrastructure designs, which often results in a reduction in unit costs. We also considered other options to meeting the combination of the Permit's MEP standard and the TMDL stormwater wasteload allocations for mercury and PCBs, which likely include a need to retrofit the existing built urban landscape over time. These other options, such as treating MS4 discharges at each discharge point into a receiving water body, were likely more expensive, in part because they were more prescriptive, offering Permittees less flexibility in future design and implementation. The value of the water quality benefit outweighs the cost increment to obtain it. Various references identify the significant not only water quality benefits, but additional benefits, such as high quality placemaking, pedestrian/multi-modal safety, reductions in the urban heat</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>island effect, and other benefits (e.g., water quality benefits are discussed in detail in references available at the International Stormwater BMP Database, <a href="http://www.bmpdatabase.org">www.bmpdatabase.org</a>. U.S. EPA has made available a variety of references on costs and benefits, at: <a href="http://water.epa.gov/infrastructure/greeninfrastructure/gi_costbenefits.cfm">water.epa.gov/infrastructure/greeninfrastructure/gi_costbenefits.cfm</a>). The significant incorporation of green infrastructure as a part of the solution to urban runoff problems by cities including, but not limited to, Chicago, Milwaukee, Detroit, Kansas City, Philadelphia, New York, Portland and Eugene, Oregon, Seattle, Los Angeles, Minneapolis, San Diego, and Auckland, New Zealand, in China's developing "sponge city" approach, and elsewhere, as well as the concomitant support for those kinds of solutions by organizations like NRDC, TreePeople, and others, indicates the positive role green infrastructure can play in the urban environment. Additionally, it is not infeasible to pay for green infrastructure planning. The costs may be offset to a certain extent by grant funds or collaborating with other Permittees, establishing fees or other exactions, and by planning ahead of time to incorporate green infrastructure designs into infrastructure and other maintenance and replacement projects that will need to be completed over time. One aspect of the requirement to plan green infrastructure implementation over time as a part of the plans is to enable</p>	



**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>Permittees to identify the likely opportunities that will crop up and to plan for funding for the. As an example, the watershed management plans completed in Southern California for TMDL compliance, including in Los Angeles and San Diego, have served as a spur for planning for and obtaining funding, including successful bond measures.</p> <ul style="list-style-type: none"> <li>• Board staff concurs that more time should be allotted for development and approval of the framework for the Plan.</li> <li>• Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019 Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan is too much time and would prevent Water Board staff from being able to use the Plans to inform the development of the MRP in the next Permit term.</li> </ul>	
San Mateo Co Santa Clara Co	4 6, 7	C.3.j.i.(1) C.3.j.i.(4)	Green Infrastructure Framework and Plan Due Dates	<ul style="list-style-type: none"> <li>• Although opportunities are available to integrate GI objectives into the County's various long- range capital and sustainability programs, retrofit projects under those programs would be implemented by the County and not the Water Board. These retrofit projects</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing over the</li> </ul>	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>are projected to be constructed under long-term (e.g. ten year) capital funding cycles, and are further dependent on the availability of funding for long-term maintenance. The timeframes in the TO are simply unrealistic because developing a comprehensive GI Plan requires time and significant County resources. For example, the GI Plan framework has to be developed and approved by the Board of Supervisors within one year of the Permit effective date, which is unrealistic since numerous County agencies must be involved in evaluation of GI opportunities and amendment of capital plans and programs to include feasible components of GI. This planning work needs to be completed before consideration of a plan by the Board.</p> <ul style="list-style-type: none"> <li>• The TO must be revised to provide two years to complete and obtain governing body approval of the GI. Framework, and further revised to provide the entire permit term to complete the GI Plan. This will ensure the County and other Permittees have the opportunity to conduct a thorough evaluation of GI opportunities; are able to properly vet potential GI projects with implementing</li> </ul>	<p>long term, the adverse water quality impact of urbanization and urban runoff on receiving waters.</p> <ul style="list-style-type: none"> <li>• Board staff concurs that more time should be allotted for development and approval of the framework for the Plan.</li> <li>• Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019 Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan is too much time and would prevent Water Board staff from being able to use the Plans to inform the development of the MRP in the next Permit term.</li> <li>• See also response, above, to ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.) and  San Jose 5, 26</li> </ul>	

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				departments, taxpayers/ residents, and elected officials; and have time to develop funding mechanisms to facilitate project implementation.		
U.S. EPA	17	C.3.j.i.(1) C.3.j.i.(4)	Green Infrastructure Framework and Plan Due Dates	EPA recognizes that timeframes of 2016 and 2018, respectively, have been proposed as due dates for Permittees to submit frameworks and complete plans to the Water Board. In the interest of developing feasible GI plans, EPA is open to extending these timeframes should Permittees provide justification that additional time is necessary	Comment noted.	Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.
Belmont Brisbane Burlingame CCCWP El Cerrito East Palo Alto Mountain View San Bruno San Mateo San Jose SCVURPPP SMCWPPP	11, 12 4 12, 13 7, 28 7 9, 10 4, 5 13 10 25 21, 85 14	C.3.j.i.(1) C.3.j.ii.	Green Infrastructure Plans and Projects	<ul style="list-style-type: none"> <li>This provision will be one of the most challenging portions of C.3 to implement and has a significant level of uncertainty in terms of what will constitute compliance.</li> <li>The level of effort and resources required to implement Provision C.3 could be dramatically higher than implementing the current permit because of these new requirements.</li> <li>The language in Provision C.3.j needs to be more consistent with the expectations in Provisions C.11 and C.12 for achieving PCB and mercury load reductions with green infrastructure. Make more explicit in C.3.j (as well as in C.11/12) that private</li> </ul>	<p>See also response, above, to San Jose 5, 26 Dublin 4 Walnut Creek 2, 3</p> <p>ACCWP 28 Berkeley 25, 26 Cupertino 6 (etc.) and</p> <p>San Mateo County 4 Santa Clara County 6, 7</p>	<ul style="list-style-type: none"> <li>Provision C.3.j.i. and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</li> <li>Revisions have been made to the deadlines and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11.</li> </ul>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				development and redevelopment as well as public projects will count toward meeting PCB and mercury load reductions, and that constructed public green infrastructure projects within the permit term are not required for compliance with green infrastructure pollutant load reductions.		and C.12.
Dublin	5	C.3.j.i.(1) C.3.j.ii.	Green Infrastructure Plans and Projects	<ul style="list-style-type: none"> <li>• Dublin is not convinced of the water quality benefits that will be achieved from the Green Infrastructure Plan and the construction of green infrastructure projects. The cost/benefit ratio for some green infrastructure projects will be too high to justify project planning, development and construction.</li> <li>• Provide scientifically sound information (data) that demonstrates the water quality benefits that will be achieved from the green infrastructure projects.</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</li> <li>• Green infrastructure employs LID, which is recognized as a cost-effective, beneficial, and holistic integrated stormwater management strategy that will provide a more resilient, sustainable system that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, and promotes infiltration, all of which will result in water quality benefits. See, for example, the references cited in San Jose 5, 26.</li> <li>• The costs may be offset to a certain extent by grant funds, collaborating with other Permittees, incorporating green infrastructure features into budgeted</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>and future infrastructure projects, as well as through alternative compliance in-lieu fees from Regulated Projects.</p> <ul style="list-style-type: none"> <li>• The total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure projects so the burden for the total cost of implementing all these projects does not rest solely on the Permittees.</li> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed.</li> <li>• See also responses to other C.3 comments in this RTC, including, but not limited to, Clayton 9, 10, 11, 12, 13; San Jose 5, 26; and Contra Costa Co. 3, 4.</li> </ul>	
<p>El Cerrito Orinda Pinole San Pablo San Ramon</p>	<p>2b, 6, 8 2 1b 3 3</p>	<p>C.3.j.i.(1) C.3.j.ii.</p>	<p>Green Infrastructure Plans and Projects</p>	<ul style="list-style-type: none"> <li>• The TO requires all Permittees to assess each planned infrastructure project and add green infrastructure features where feasible.</li> <li>• El Cerrito is concerned with the challenge of generating the additional financial resources that would be required to meet the terms of many of the new provisions. These new requirements could significantly impact how transportation</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing over the long term, the adverse water quality impact of urbanization and urban runoff on receiving waters.</li> <li>• The costs may be offset to a certain</li> </ul>	<p>None</p>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>infrastructure is built and maintained over the next several decades. The burden of these requirements must be balanced with the multiple other demands for use of limited public right-of-way in the built environment. Efforts during the MRP 2.0 term should focus on planning and opportunistic implementation where feasible.</p> <ul style="list-style-type: none"> <li>• Green Infrastructure would be a cost-prohibitive option that would significantly increase the cost of pavement rehabilitation projects. The City of Orinda has the unfortunate standing as having some of the worst roads in the Bay Area, and funding would need to be diverted to water quality treatment facilities instead of the pavement itself. In addition, Orinda has limited right-of-way to accommodate and fit-in Green Infrastructure features.</li> <li>• Pinole and San Pablo ask that permit language is clarified to allow Permittees to analyze and consider factors such as: grading and drainage, pollutant loading associated with adjacent land use, use of available space within the project area, condition of existing infrastructure and potential funding to support LID elements.</li> </ul>	<p>extent by grant funds, collaborating with other Permittees, incorporating green infrastructure features into budgeted and future infrastructure projects, as well as through alternative compliance in-lieu fees from Regulated Projects.</p> <ul style="list-style-type: none"> <li>• The total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure projects so the burden for the total cost of implementing all these projects does not rest solely on the Permittees.</li> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed. That includes options such as considering factors identified by the commenters.</li> <li>• Orinda comments that green infrastructure may increase the cost of pavement rehabilitation projects. As noted elsewhere in the responses to this section (see below) the choice faced under the MEP standard and requirement to achieve wasteload allocations for impairing pollutants is not a choice between the status quo (i.e., maintaining, possibly in perpetuity, the existing road infrastructure without addressing its water quality impacts) and green infrastructure planning.</li> </ul>	

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>Rather, it is a choice between, or among, different solutions that address the ongoing contributions of runoff from urbanized area, including roads, to receiving waters. Green infrastructure planning represents a solution that is likely significantly more cost effective, more flexible, and which gives Permittees a greater degree of control than other options, such as end-of-pipe treatment. Additionally, we anticipate that, similar to the incorporation of complete street requirements into transportation grant funding, green street requirements will also be added, thus making such projects competitive for future transportation grant funds.</p> <ul style="list-style-type: none"> <li>• See also responses elsewhere in this section, including, but not limited to: Clayton 9, 10, 11, 12, 13 Contra Costa Co. 3, 4 and San Jose 5, 26</li> </ul>	
BASMAA Palo Alto Santa Clara Co SCVURPPP	4, 5 4 1 8	C.3.j.i.(1) C.3.j.i.(4) C.3.j.ii.	Green Infrastructure Plans and Projects Due Dates	<ul style="list-style-type: none"> <li>• This Provision will be one of the most challenging to implement and, similar to Provisions C.11 and C.12, has a significant level of uncertainty in terms of what will constitute compliance.</li> <li>• Developing a comprehensive Green Infrastructure Plan will take time and significant resources, and the timeframes in the TO for completion of the Plan are unrealistic.</li> <li>• Specifically, completing a Green Infrastructure Plan will be a complex and time-intensive</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. The Plan also sets goals for reducing over the long term, the adverse water quality impact of urbanization and urban runoff on receiving waters.</li> <li>• One of the requirements for the Plan is to identify means and methods to prioritize particular areas and projects</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.j.i.(1) has been revised to allow more time for development and approval of the framework for the Plan.</li> <li>• Provision C.3.j.i. and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>process which will require a great deal of municipal interdepartmental coordination and should be provided the entire permit term to complete.</p> <ul style="list-style-type: none"> <li>• Additionally, the TO requires early implementation of green infrastructure, focused on identifying and implementing public projects that have potential for including LID measures within the permit term.</li> <li>• Implementation (i.e., design and construction) during the Permit term of green infrastructure projects that are not already planned and funded will be very challenging for most Permittees.</li> <li>• We request that Water Board staff work with Permittees to make this section more consistent with C.11 and C.12, and more flexible for different types and sizes of Permittees to comply, and allow more realistic timeframes for compliance.</li> <li>• Efforts during the MRP 2.0 term should focus on development of long-term Green Infrastructure Plans and continue to leverage opportunistic implementation of green infrastructure projects where feasible.</li> </ul>	<p>within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed.</p> <ul style="list-style-type: none"> <li>• Board staff concurs that more time should be allotted for development and approval of the framework for the Plan.</li> <li>• Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019 Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan is too much time and would prevent Water Board staff from being able to use the Plans to inform the development of the MRP in the next Permit term.</li> <li>• Provision C.3.j.ii.(1) requires each Permittee to prepare and maintain a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term and infrastructure projects planned for implementation that have potential for green infrastructure measures. The purpose of Provision C.3.j.ii. is to ensure that each Permittee is proactively developing green infrastructure projects and including green infrastructure elements into already-planned infrastructure projects as much as</li> </ul>	<p>implemented over time includes both private and public green infrastructure.</p> <ul style="list-style-type: none"> <li>• Revisions have been made to the dues dates and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11. and C.12.</li> </ul>



**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>possible, while the Green Infrastructure Plan is being developed. Thus, it already allows for opportunistic implementation. It does not specify that a certain number of public green infrastructure projects be implemented during the Permit term.</p> <ul style="list-style-type: none"> <li>• Board staff concurs that the timelines in this Provision should be better aligned with the deadlines specified in Provisions C.11. and C.12, and has revised Permit language to address this.</li> <li>• See response to Dublin 4, above, regarding certainty of compliance.</li> </ul>	
Santa Clara Co	3, 4, 5	C.3.j.i.(1) C.3.j.ii.	Green Infrastructure Plans and Projects	<ul style="list-style-type: none"> <li>• There are few redevelopment opportunity areas within unincorporated Santa Clara County where private development projects could make significant contributions towards the total area retrofitted with green infrastructure.</li> <li>• The infrastructure managed by the County, such as hillside residential streets, freeway-like expressways, and rural and semi-rural parklands, may not provide good opportunities for green infrastructure retrofit projects, particularly those that would address mercury and PCB sources as the TO envisions.</li> <li>• The largest County facilities are located within the City of San Jose and not in unincorporated Santa Clara County. The TO</li> </ul>	<ul style="list-style-type: none"> <li>• One of the requirements for the Green Infrastructure Plan is to identify means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed.</li> <li>• The Green Infrastructure Plan requirement has been constructed to be flexible, allowing the opportunity during Plan development for coordination within and between Permittees. The issue of crediting should be addressed during Plan development, in coordination with the development of Reasonable Assurance Analyses required pursuant to provisions C.11.d and C.12.d., and review by Water Board staff.</li> <li>• The kinds of road infrastructure projects</li> </ul>	None

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				provides no guidance as to whether the County or City would be credited for these retrofits. Such guidance is requested. The County believes it should receive credit for these facilities since they are County-owned and -operated facilities that are often exempt from the City's building and land use authority.	<p>cited by the commenter—freeway-like expressways and hillside streets—can have significant contributions to water quality impacts (e.g., through the discharge of trash and auto-related pollutants and through hydromodification). As such, it is important that they be considered as a part of green infrastructure planning. To the extent a particular green infrastructure approach is challenging to incorporate at a particular site, the County also has an opportunity to coordinate with its neighboring jurisdictions to identify opportunities to address those impacts.</p> <ul style="list-style-type: none"> <li>• See also response to Santa Clara Co. 5 in the RTC for Provisions C.11 and C.12 for Water Board staff's current expectation of crediting.</li> </ul>	
Belmont Brisbane Burlingame Cupertino Daly City East Palo Alto Mountain View  San Bruno San Carlos San Ramon SCVURPPP SMCWPPP	13b 5b 14b 6 5 11b 6  14b 4b 8,9 22 15	C.3.j.i.(1)(a) C.3.j.i.(4)	Green Infrastructure Plans Due Date Mechanisms for Prioritization	<ul style="list-style-type: none"> <li>• Completing a Green Infrastructure Plan will be a complex and time-intensive process that will require a great deal of municipal inter-departmental coordination and resources.</li> <li>• Provide the entire permit term to complete the Green Infrastructure Plan instead of just 3½ years from the expected Permit effective date.</li> <li>• Eliminate the two-year deadline to complete prioritization, mapping, and begin implementation of planned or</li> </ul>	<ul style="list-style-type: none"> <li>• Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019 Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan would prevent Water Board staff from being able to use the Plans to inform the development of the MRP in the next Permit term.</li> <li>• Board staff concurs that more time should be allotted for prioritization and</li> </ul>	The 2-year deadline in Provision C.3.j.i.(1)(a) has been deleted.

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>potential projects (before the Green Infrastructure Plan is completed), and include these efforts in the Green Infrastructure Plan development period.</p> <ul style="list-style-type: none"> <li>• Allowing additional time would allow Burlingame to integrate MRP provisions into the General Plan.</li> <li>•</li> </ul>	mapping of potential projects.	
<p>Belmont Brisbane Burlingame CCCWP Mountain View San Bruno San Mateo SCVURPPP SMCWPPP</p>	<p>14 6 15 30 7 15 11 23 16</p>	C.3.j.i.(1)(a)	Prioritization and Mapping of Potential and Planned Projects	<ul style="list-style-type: none"> <li>• Issue: Prioritization and mapping of potential and planned projects will be a major, resource-intensive effort, especially for those smaller jurisdictions that do not have GIS data layers already available. Additional flexibility in approaches to mapping and prioritization is needed. In addition, the time intervals for planning should be aligned with fiscal years, and made consistent with the time intervals for load reductions in C.11/12.</li> <li>• Requested Revision: The mechanisms used to develop the GI Plan and priorities should include other less complex tools in addition to the GreenPlan-IT tool. The time intervals should be changed to FY 19-20, FY 24-25, and FY 29-30 (to align with C.11/12 load reduction reporting intervals of 2020 and 2030).</li> </ul>	<ul style="list-style-type: none"> <li>• Board staff concurs that more time should be allotted for prioritization and mapping of potential projects.</li> <li>• The requirement for the Green Infrastructure Plan to include a mechanism to prioritize and map areas for potential and planned projects, both public and private, on a drainage-area specific basis has been revised for implementation over the same timeframes as specified in Provisions C.11. and C.12. for assessing load reductions.</li> <li>• SFEI's Green Plan-IT tool was included as an example of a likely acceptable approach, not a requirement. Each Permittee has flexibility in choosing the mechanism as long as it acceptably includes criteria for prioritization and outputs that can be incorporated into the Permittees' long-term planning and capital improvement processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Revisions have been made to the due dates and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11. and C.12.</li> <li>• Provision C.3.j.i.(2)(a) has been revised to include the phrase "or a another tool" along with SFEI's Green Plan-IT as examples of mechanisms to prioritize and map areas for potential and planned green infrastructure projects.</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
Cupertino Mountain View	6 6	C.3.j.i.(1)(a) C.3.j.ii.(1)	Prioritization and Mapping of Potential and Planned Projects	<ul style="list-style-type: none"> <li>Eliminate the 2-year deadline to complete prioritization and mapping. Implementation should begin after the GI Plan is completed.</li> <li>Efforts during the MRP 2.0 term should focus on development of long-term opportunistic implementation of green infrastructure projects where feasible and where funding is available.</li> </ul>	<ul style="list-style-type: none"> <li>Board staff concurs that more time should be allotted for prioritization and mapping of potential projects.</li> <li>Provision C.3.j.ii.(1) requires each Permittee to prepare and maintain a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term and infrastructure projects planned for implementation that have potential for green infrastructure measures. The purpose of Provision C.3.j.ii. is to ensure that each Permittee is proactively developing green infrastructure projects and including green infrastructure elements into already planned infrastructure projects as much as possible, while the Green Infrastructure Plan is being developed. It does not specify that a certain number of public green infrastructure projects be implemented during the Permit term.</li> </ul>	The 2-year deadline in Provision C.3.j.i.(1)(a) has been deleted.
Belmont Brisbane CCCWP Daly City\ Emeryville Livermore Mountain View San Bruno San Jose San Mateo San Ramon SCVURPPP SMCWPPP	15 7 31 5 102 6 8 16 6 12 8, 9 24, 87 17	C.3.j.i.(1)(c)	Targets for Amount of Impervious Surface to be Retrofitted	<ul style="list-style-type: none"> <li>Issue: Provision C.3.j.i.(1)(c) requires Green Infrastructure Plans to include "targets for the amount of impervious surface within the Permittee's jurisdiction to be retrofitted" within 2, 7, 12, 27, and 52 years of the Permit effective date. It is unclear how these "targets" are to be established by each Permittee. In addition, the timeframes for establishing "targets" (we would prefer the term "projections") for the amount of impervious surface</li> </ul>	<ul style="list-style-type: none"> <li>The Green Infrastructure Plan is intended to describe how Permittees will shift their impervious surfaces and storm drain infrastructure from gray (traditional) to green. That is, the Plan should describe how the Permittees will change over time infrastructure that directs runoff directly into storm drains and receiving waters to green infrastructure that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, promotes infiltration and evapotranspiration, and uses bioretention and other green infrastructure practices to treat</li> </ul>	<ul style="list-style-type: none"> <li>Provision C.3.j.i. and ii. have been revised to reflect that the total number of and geographical extent of green infrastructure projects implemented over time includes both private and public green infrastructure.</li> <li>Revisions have</li> </ul>

## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>retrofitted do not line up with the C.11/12 load reduction timeframes, making it difficult to calculate projected load reductions.</p> <ul style="list-style-type: none"> <li>Requested Revision: Allow the development of "projections" instead of "targets", and allow Permittees to include projected private development as well as public projects. Allow projections to be developed for the years 2020, 2030, 2040, and 2065, consistent with C.11/12 and with other municipal planning documents.</li> </ul>	<p>stormwater runoff.</p> <ul style="list-style-type: none"> <li>Therefore, one of the required elements for the Plan is for Permittees to self-determine and establish "targets" for the amount of impervious surface to be retrofitted with green infrastructure. "Targets" is more appropriate than "projections" because the purpose of this required element is to require Permittees to proactively identify green infrastructure work that they will complete beyond what would happen anyway.</li> <li>Board staff concurs that the time schedules for meeting these targets should be consistent with the timeframes for assessing mercury and PCB load reductions specified in Provisions C.11. and C.12.</li> <li>Board staff concurs that these targets should include public and private green infrastructure projects.</li> </ul>	<p>been made to the dues dates and timelines in Provisions C.3.j.i.(1), (2), and (5) to be aligned with the due dates in Provisions C.11. and C.12.</p>
ACCWP Berkeley Dublin Emeryville	29 27, 28, 29 6 102	C.3.j.i.(1)(g)	Flexibility for Sizing Treatment controls at Road Projects	<ul style="list-style-type: none"> <li>The C.3.d.sizing requirement generally requires that the treatment system is about 4% of the area draining to the treatment system, has a minimum infiltration rate of 5 inches per hour, and has a specified type and depth of soil and gravel. As was learned through the Green Streets pilot projects required under the current permit, that standard is often impossible to achieve for roadway projects.</li> <li>Roadway retrofit treatment</li> </ul>	<ul style="list-style-type: none"> <li>Board staff acknowledges that there may be constraints to meeting the Provision C.3.d. hydraulic sizing requirements for road retrofit projects. This Provision provides flexibility to address these situations in that Permittees may collectively propose a single approach with their Green Infrastructure Plans for how to proceed when such projects cannot fully meet the Provision C.3.d. sizing requirements. As such, the Permit language allows for a proposal to incorporate the flexibility requested by the commenters.</li> <li>The single approach can include</li> </ul>	<p>Provision C.3.j.i.(1)(g) [renamed C.3.j.i.(2)(g) in revised TO] has been revised to reflect greater flexibility by indicating that the single approach can include different options to address specific issues or scenarios.</p>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>projects are often highly constrained due to competing needs for space for pedestrian and bicycle traffic, Americans with Disabilities Act (ADA) compliance, as well as underground utilities. There is also often a large amount of runoff from adjacent private parcels that cannot be limited or diverted. The minimum 5 inch per hour infiltration rate will also preclude the planting of trees in the treatment area as trees need a slower draining soil (e.g., 3 to 4 inches per hour). Trees are an extremely desirable species to include in their green streets projects, and the City should be able to include tree wells within their treatment calculations. The requirement to meet the C.3.d sizing criteria is an undue cost burden on the City, EBMUD, PG&amp;E, Comcast, AT&amp;T, and other utility companies due to the competing needs and underground congestion. The added utility coordination can double the City's design and construction management costs, extend project delivery times, and cause other underground utilities to relocate their facilities. We believe outreach to other agencies and companies is important and</p>	<p>different options to address specific issues or scenarios. That is, the approach shall identify the specific constraints that would preclude meeting the sizing requirements and the design approach(es) to take in that situation. These could include opportunities for alternative compliance as suggested by the commenters, and the Permit language has sufficient flexibility to accommodate such a proposal.</p>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>needs to be done to create a functional permit and weigh the impact to society. The requirement to meet the C.3.d sizing criteria will often not be possible to meet.</p> <ul style="list-style-type: none"> <li>• Greater flexibility should be included in the permit. The allowance for all Permittees to provide a single alternative approach is not feasible as local conditions and constraints vary among jurisdictions and across the region. At a minimum the provision should be revised to allow countywide programs to submit alternative approach. Add alternative compliance and allow the treatment facility to be located outside the watershed.</li> </ul>		
Clayton	3	C.3.j.i.(4)	<p>Prioritization of tasks in MRP 2.0 Green Infrastructure Plan</p>	<ul style="list-style-type: none"> <li>• The City of Clayton asks for prioritization. There is not an ability to achieve all the proposed requirements for Green Infrastructure and PCBs in the time frames identified with the lack of new funds or staffing.</li> <li>• The Green Infrastructure and PCB plans need to be moved in their start and implementation to later time periods so that cities can continue to focus on the Trash Reduction implementation.</li> </ul>	<ul style="list-style-type: none"> <li>• Board staff understands that the requirements of the entire MRP taken together are significant, and may require the Permittees to secure additional resources and funding to implement.</li> <li>• The MRP is not a zero sum endeavor. Each of the components in the Permit is there because it is important to removing pollutants from stormwater. Board staff disagrees that the full permit term is necessary for development of the Plan. Based on other cities' past experiences in developing Green Infrastructure Plans, Board staff believes the allotted 3 years and 9 months (the Plan is due with the 2019</li> </ul>	<p>Green Infrastructure Plan planning dates have been aligned with the concomitant dates for Provisions C.11 and C.12, Hg and PCBs.</p>

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>Annual Report) is adequate time for each Permittee to complete its Plan. Allowing the entire Permit term to complete the Plan would prevent Water Board staff from being able to use the Plans to inform the development of the MRP in the next Permit term.</p> <ul style="list-style-type: none"> <li>• See also Response, above, to San Jose 5, 26 and Contra Costa 3, 4</li> </ul>	
<p>BASMAA Belmont Brisbane Burlingame CCCWP Mountain View San Bruno San Carlos San Jose San Mateo Co San Mateo SCVURPPP SMCWPPP</p>	<p>4 16 8 17 32 9 17 5 27 5 13 25, 97 18</p>	C.3.j.ii.	Early Implementation	<ul style="list-style-type: none"> <li>• Issue: Provision C.3.j.ii requires early implementation of GI, focused on identifying and implementing public projects that have potential for GI measures (including LID treatment) within the permit term. It is unclear how compliance with this section will be determined.</li> <li>• The process for review of planned capital projects needs to be more defined and objective, in order to avoid disagreements with Regional Water Board staff as to what are "missed opportunities."</li> <li>• There also needs to be the recognition that while it may be technically feasible to add LID features to a capital project, the funding for the additional features and the ongoing maintenance of the LID features may not be available.</li> <li>• Implementation (i.e., design and construction) during the</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.j.ii.(1) requires each Permittee to prepare, maintain, and submit with each Annual Report, a list of green infrastructure projects, public and private, that are already planned for implementation during the permit term and infrastructure projects planned for implementation that have potential for green infrastructure measures.</li> <li>• Provision C.3.j.ii.(1) has been revised to specifically state that the list should include both public and private projects.</li> <li>• It is implicit that the requested list shall include all Regulated Projects, public and private, that are already planned for implementation during the Permit term. Data on Regulated Projects is required under Provision C.3.b., so implementation of this Provision's reporting requirement should be immediate. It is understood that the list may not include any road retrofit projects (non-Regulated Projects) in the first (2016) Annual Report; therefore, this Provision does not have to state an implementation date of July 1, 2016, for review of capital projects and delay the</li> </ul>	<p>Provision C.3.j.ii.(1) has been revised to specifically state that the list should include both public and private projects.</p>



## Response to Comments on May 11, 2015 TO Provision C.3. – New Development and Redevelopment

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>Permit term of GI projects that are not already planned and funded will be very challenging for most Permittees.</p> <ul style="list-style-type: none"> <li>Requested Revision: Efforts during the MRP 2.0 term should focus on development of long- term GI Plans and opportunistic implementation of GI projects where feasible and where funding is available. Add language proposed by the Permittees as early input to the Administrative Draft Permit:            "Permittees shall review and analyze appropriate projects within the Permittee's capital improvement program, and for each project, assess the opportunities and associated costs of incorporating LID Into the project. The analysis shall consider factors such as grading and drainage, pollutant loading associated with adjacent land uses, uses of available space with the project area, condition of existing infrastructure, opportunities to achieve multiple benefits such as providing aesthetic and recreational resources, and potential availability of incremental funding to support LID elements along with other relevant factors. Permittees will collectively </li></ul>	<p>first due date for the list to the 2017 Annual Report.</p> <ul style="list-style-type: none"> <li>The purpose of Provision C.3.j.ii. is to ensure that each Permittee is proactively developing green infrastructure projects and including green infrastructure elements into already-planned infrastructure projects as much as possible, while the Green Infrastructure Plan is being developed. It does not specify that a certain number of public green infrastructure projects be implemented during the Permit term.</li> <li>As written, the Permit allows for Permittees to use the factors suggested by the commenters in their consideration of early implementation opportunities. There may be disagreements regarding which projects really are missed opportunities; at the same time, during meetings with Permittees and other interested stakeholders, Board staff was not able to identify clear, bright-line tests regarding thresholds for a variety of factors that could influence whether a particular project is an opportunity. That was true, in part, because the specifics of each particular project can weigh heavily on whether it provides an opportunity for early implementation. The Permit already sets forth a mechanism for reporting and consideration of justification that can include the suggested factors.</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
				<p>evaluate and develop guidance on the criteria for determining practicability of incorporating green infrastructure measures into planned projects.”</p> <ul style="list-style-type: none"> <li>• This language would allow for consistent review of capital projects for GI opportunities, based on specified criteria.</li> <li>• Allow the development of these criteria to take place within the first seven months of the Permit effective date, and set the implementation to begin review of capital projects as July 1, 2016 (beginning of the fiscal year), with the submittal of the first list of projects with the 2017 Annual Report.</li> </ul>		
El Cerrito	10	C.3.j.ii.	Early Implementation	<ul style="list-style-type: none"> <li>• The Early Implementation section does not provide a clear path to compliance. Because it affects long-range planning, it must be more defined and achievable in order to be realized. These major new mandates will require a significant, sustained effort to implement; however, absent any new or additional funding sources, most communities will be hard-pressed to achieve compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Provision C.3.j.ii.(1) requires each Permittee to prepare, maintain, and submit with each Annual Report, a list of green infrastructure projects, public and private, that are already planned for implementation during the Permit term and infrastructure projects planned for implementation that have potential for green infrastructure measures.</li> <li>• Provision C.3.j.ii.(1) has been revised to specifically state that the list should include both public and private projects.</li> <li>• It is implicit that the requested list shall include all Regulated Projects, public and private, that are already planned for implementation during the Permit term. Data on Regulated Projects is required</li> </ul>	Provision C.3.j.ii.(1) has been revised to specifically state that the list should include both public and private projects.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>under Provision C.3.b., so implementation of this Provision's reporting requirement should be immediate. It is understood that the list may not include any road retrofit projects (non-Regulated Projects) in the first (2016) Annual Report; therefore, this Provision does not have to state an implementation date of July 1, 2016, for review of capital projects and delay the first due date for the list to the 2017 Annual Report.</p> <ul style="list-style-type: none"> <li>• The purpose of Provision C.3.j.ii. is to ensure that each Permittee is proactively developing green infrastructure projects and including green infrastructure elements into already planned infrastructure projects as much as possible, while the Green Infrastructure Plan is being developed. It does not specify that a certain number of public green infrastructure projects be implemented during the Permit term.</li> <li>• The Early Implementation section affects projects that will be constructed during this Permit term. It is not clear how that affects long-range planning.</li> <li>• See also the response, immediately above, to:  BASMAA 4  Belmont 16  Brisbane 8  (etc.). and    San Jose 5, 26</li> </ul>	
Pittsburg	3	C.3.j.iv.	Tracking Green Infrastructure	It is ambitious to expect that Permittees could develop a	<ul style="list-style-type: none"> <li>• The Green Infrastructure Plan is necessary to serve as an</li> </ul>	None

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
			Projects	<p>Capital Improvement Program to meet the prescribed mercury and PCB reductions as outlined in Provisions C.11 and C.12, while also incorporating C.3 into these projects. The Fact Sheet regarding reduction of PCBs acknowledges uncertainties regarding the effectiveness and benefits of control measures due to limited data and experience with these control measures. Additionally, there is no guidance provided to account for mercury and PCB load reductions with constructed green infrastructure projects. Before Permittees expend valuable time and resources towards this goal, the expectations and means to validate compliance must be clear. Further development of acceptable design standards that meet the intent of pollutant removal through green infrastructure projects is necessary for Permittees to develop constructible projects.</p>	<p>implementation guide and reporting tool during this and subsequent Permit terms, in coordination with the reasonable assurance analyses required by Provisions C.11.d. and C.12.d., to provide reasonable assurance that urban runoff TMDL wasteload allocations for mercury and PCBs in San Francisco Bay will be met. As such, it necessarily will include reporting tools to measure success. The Plan also sets goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.</p> <ul style="list-style-type: none"> <li>• The commenter's distinction between developing a capital improvement program to meet Hg and PCB load reductions and "incorporating C.3 into these projects," which we take to mean incorporating LID measures into projects, is confusing. It is confusing because LID measures are expected to play a significant role in achieving Hg and PCB load reductions—that is, the load reductions are achieved, in part, through incorporating C.3 into projects.</li> </ul> <p>In addition, as a part of developing the Permit's load reduction requirements, Water Board staff reviewed the Permittees' own estimates of load reductions for PCBs associated with implementation of LID during the Previous Permit, during an economic recession when construction of such projects slowed. The Permit assumes Permittees will achieve at least that level</p>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>of load reduction, and the Permit is being considered during a period of significant economic growth and construction, during which it is likely that load reductions due to LID will exceed those from the Previous Permit, which would meet or exceed Permit requirements for such reductions.</p> <ul style="list-style-type: none"> <li>• Green infrastructure employs LID, which is recognized as a cost-effective, beneficial, and holistic integrated stormwater management strategy that will provide a more-resilient, sustainable system that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, and promotes infiltration, all of which will result in water quality benefits.</li> <li>• The scale of load reductions from green infrastructure implementation, as outlined in Provisions C.11 and C.12, are appropriate relative to the expected pace of redevelopment, which creates opportunities for its implementation. Further, such treatment is not the only control measure that will be brought to bear for the reduction of PCBs and mercury from MS4s. Indeed, sufficient progress toward load allocations will be dependent on intelligent implementation of all relevant control measures. The purpose of the specific load reduction performance criteria for green infrastructure is to motivate efforts in this area and not to suggest that this is the scale of reductions from this source category that will ultimately be necessary to help achieve wasteload allocations identify means and methods</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment**

Commenter	Comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
					<p>to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed.</p> <ul style="list-style-type: none"> <li>Regarding providing guidance for crediting approaches for load reductions of PCBs and mercury due to green infrastructure implementation, please see the RTC for Provisions C.11 and C.12. Additionally, PCBs are significantly associated with sediment, which is one of the pollutants green infrastructure practices, such as bioretention, are most effective at controlling (see, for example, Geosyntec Consultants and Wright Water Engineers, December 2014. <i>International Stormwater Best Management Practices (BMP) Database Pollutant Category Statistical Summary Report: Solids, Bacteria, Nutrients, and Metals</i>, available at: <a href="http://www.bmpdatabase.org/performance-summaries.html">http://www.bmpdatabase.org/performance-summaries.html</a>). Additionally, substantial work on load reduction of pollutants from green infrastructure via "loss" (e.g., through infiltration and evapotranspiration) of urban runoff flows into green infrastructure practices further supports their role in PCBs load reduction.</li> </ul>	

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment  
Attachment A to U.S. EPA’s Comments**

Outlined below are some potential ideas for Green Infrastructure (GI) plans to be developed by Bay Area permittees during MRP 2.0. Components provided below primarily arise from Los Angeles Regional Water Board guidance for reasonable assurance in watershed management plans as part of MS4 permit. Many components, but perhaps not all, will be applicable to GI plans for Bay Area. EPA encourages the Water Board to consider these ideas, modify as they deem appropriate, and include similar description of GI framework in the MRP 2.0 Fact Sheet. We recognize the continued partnership of MS4 permittees, the Water Board, EPA, and other stakeholders to discuss these ideas prior to inclusion into final GI plans.

- A. Identify the water quality priorities with watershed.
  - 1. Include any applicable required water quality milestones and compliance deadlines
  - 2. Describe watershed features, waterbodies any other relevant environmental setting information
  - 3. Outline other municipal specific goals to be addressed; e.g., flood risk, sea level protection, groundwater infiltration.
- B. Describe current BMPs and estimate existing pollutant loads
  - 1. List pollutant sources in watershed
  - 2. Provide map of major MS4 outfalls
  - 3. List any current BMPs within watershed (structural and non-structural)
  - 4. Using existing data (up to 10 yrs), give estimates of pollutant loads from watershed. (could be cone-based if no flow measurements available)
  - 5. Define on pollutant specific basis
  - 6. To extent data available and feasible, assess critical condition loads
  - 7. Describe variability of estimations.
- C. Estimate required pollutant load reductions
  - 1. To extent feasible, provide estimate of pollutant load reductions, if mass-based then calculate difference between current and allowable loads; if concentration- based then define the two values.
- D. Identify future control measures/BMPs/strategies to be implemented
  - 1. Describe drainage areas for implementation
  - 2. Identify control measures for stormwater and non-stormwater discharges; include number, location(s) and type; i.e., structural or non-structural controls, within new development, retrofit of existing development, stream/habitat restoration projects,
  - 3. Clarify pollutants to be addressed
  - 4. Define/map location of each control measure in watershed/jurisdiction
  - 5. Quantify upstream drainage area captured by each BMP
  - 6. Clarify if municipal effort only, private efforts or public/private projects
  - 7. Identify if project is within local jurisdiction or regional and describe cities involved.
- E. Provide schedule of implementation
  - 1. Identify interim milestones and dates for achievement (within this permit cycle)
  - 2. Identify all future and final dates for achievement
  - 3. Demonstrate that existing and future control measures will yield final pollutant load reductions and/or meet receiving water limits.

**Response to Comments on May 11, 2015 TO  
Provision C.3. – New Development and Redevelopment  
Attachment A to U.S. EPA’s Comments**

- F. Provide Pollutant Reduction Plan
  - 1. Identify compliance points (should be consistent with any existing regulatory compliance locations; e.g., TMDL monitoring sites expected to assess compliance)
  - 2. Consider assessment locations in association with MS4 outfalls to monitor pollutant load responses due to upstream control measures.
  - 3. Describe and evaluate selected control measures - appropriate for pollutant and sizing for load capture
  - 4. Demonstrate selected control measures have reasonable assurance to meet interim/final requirements.
  - 5. Describe adaptive management process if pollutant milestones are not met and added BMPs are needed
  - 6. Include timeframe for future re-assessments.
- G. If model used, provide description of watershed model
  - 1. Identify model type; e.g., watershed, receiving water, BMP performance, empirical
  - 2. Provide (minimum required) model components: input data, parameters, BMP performance parameters, output
  - 3. Describe model calibration acceptance criteria
  - 4. Describe efficiency for BMP performance parameters
  - 5. Demonstrate model outputs for existing pollutant loads will be addressed by combination of control measures/BMPs to achieve final milestones.
- H. Describe corresponding water quality monitoring program
  - 1. Identify parameters of concern, all monitoring sites, sampling frequency (including wet and dry weather events)
  - 2. Clarify which monitoring sites are MS4 outfalls
  - 3. Briefly describe analytical methods and QA procedures to support monitoring
  - 4. Describe any future monitoring locations and anticipated timeframe of data collection
  - 5. Briefly describe pollutant sources upstream of monitoring sites.
- I. Identify post-implementation tracking assessment efforts
  - 1. Once completed, describe the BMPs implemented, including any modifications from original project design
  - 2. Describe assessment procedures for evaluating effectiveness of control measure and corresponding pollutant load reductions for each implemented BMP, as necessary
  - 3. Provide schedule for re-evaluation of BMP load reductions over long term.